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ABSTRACT

In 1989, the Midland College Business and Economic Development Center conducted a survey of manufacturing and oil-related businesses in the Midland area of Texas who were members of the Midland Chamber of Commerce. A comparable study was conducted in 1990 of businesses who were members of the Big Spring Chamber of Commerce. For the Midland survey, 70 out of 200 firms returned surveys, while for the Big Spring survey, 151 usable surveys out of 500 were returned. The surveys sought to determine: (1) the companies' description and history; (2) the extent to which the samples were representative of the local business communities; (3) local economic factors and the extent to which businesses were familiar with factors influencing business such as capital availability and taxes; (4) employment and labor trends, including those labor force issues affecting business retention and expansion; (5) general categories of commodities used in production and the sources of these commodities; (6) customers and competitors, including the success of businesses in marketing efforts and how they are affected by competitive pressures; (7) physical facilities, including the effects of present facilities and future needs on businesses; and (8) trends and outlooks for businesses over the next few years. Survey instruments and detailed tables of results are included. (JMC)

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BIG SPRING AND MIDLAND BUSINESS RETENTION AND EXPANSION SURVEYS

By

Nolan M. McCarty

JUNE 1990

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PERMIAN BASIN PRIVATE INDUSTRY COUNCIL

BIG SPRING BUSINESS RETENTION AND EXPANSION SURVEY

A PROJECT DONE IN COOPERATION WITH:

HOWARD COLLEGE
SOUTHWESTERN BELL
BIG SPRING AREA CHAMBER OF COMMERCE
PERMIAN BASIN PRIVATE INDUSTRY COUNCIL
MIDLAND COLLEGE BUSINESS AND ECONOMIC DEVELOPMENT CENTER

June, 1990

BIG SPRING BUSINESS RETENTION AND EXPANSION SURVEY

A publication of the Business and Economic Development Center of Midland College.

This report was written by Nolan M. McCarty.

This project was funded by Southwestern Bell Telephone and the Permian Basin Private Industry Council.

This survey was undertaken to explore the issues that relate to business retention and expansion in the Big Spring area. These issues are of immediate concern to Big Spring because existing businesses will continue to be the foundation of the Big Spring economy for years to come.

We wish to acknowledge the valuable assistance of Patty Phelps and Jim Williams. Additional help and assistance was provided by Dr. Andy Hicks, and Mr. Whayne Moore, and the team consisting of Isaura Solano, Francine Lynn, Norma Morales and Ron Lechwar.

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THE BIG SPRING BUSINESS RETENTION AND EXPANSION SURVEY

Economic development has become imperative to the future of the city of Big Spring and the Permian Basin. Many strategies have emerged to promote development in the area. These initiatives usually require broad based support from the community. Thus, there is an inherent bias toward development projects that can captivate the community and generate the most publicity. As a result, the strategies most often pursued involve the attraction of new industries from other parts of the country. This is because these relocations can generate a large amount of fanfare and publicity. However, this approach to development may not be the most effective and efficient way to proceed. Recruitment efforts can require a great deal of resources with sometimes slim probabilities of success. Even successful efforts are often not without problems. Subsidies and tax abatement are often required to lure new businesses. These enticements can lower the gains to the community from the relocation and possibly place demands on local finances. Even state and federal projects locating in the area are problematic in that the local economy can become enslaved by the whims of the budgetary process.

However, there is an effective alternative. It is to direct the community's resources toward developing the community from within. The idea is to promote the retention and expansion of current businesses in Big Spring as well as promoting entrepreneurship and new business formation. In order to facilitate such a strategy and provide a basis for community support, Southwestern Bell, the Big Spring Chamber of Commerce, and Howard and Midland Colleges have prepared this report on possibilities for business retention and expansion in Big Spring. This report summarizes the results of a survey of Big Spring businesses. These results give a clear picture of the business community's attitudes about retention and expansion and identifies those factors which can enhance development from within.

THE SURVEY

The survey was mailed to approximately 500 Big Spring businesses who are members of the Big Spring Chamber of Commerce. The criteria of chamber membership might create a slight bias against newer and smaller firms in the area who may not yet have joined the Chamber. However, these new businesses should not be overlooked as they are essential to any retention and expansion program. Nevertheless, the Chamber list provided a convenient and accurate source for contacting the bulk of the business community. Of those surveyed, 151 firms provided completed surveys yielding a response rate of 30%. The response rate is slightly lower than a comparable study of the city of Midland. However, as the Big Spring sample was more encompassing than the Midland study, the number of responses from Big Spring was much higher.

The survey contains the following sections of questions.

A. Company Description and History
B. Local Economic Factors
C. Employment and Labor
D. Suppliers
E. Customers and Competitors
F. Physical Facilities
G. Trends and Outlooks

The questions in the survey are answered in two different methods: multiple choice and open-ended responses. In the case of multiple choice, the respondents are prompted by a list of possible answers to each question, whereas open-ended questions require the respondent to provide his or her own answer. As the two formulations are not equivalent, direct comparison of multiple choice responses and open-ended responses is not advisable. Therefore, open-ended questions and responses are denoted by "#" in the results listed in the appendices of this report.

Response rates vary greatly by question. Questions that are of a more sensitive nature, require detailed information, and those that are applicable to only a small number of businesses tend to have lower than average response rates. Due to this variation in response, the absolute values of the results are listed (i.e., 27 firms

answered "yes") instead of percentage values. Comparison of percentages of a particular response should be avoided as differences in response rates across questions may make these comparisons meaningless.

SECTION A- COMPANY DESCRIPTION AND HISTORY

This section was designed to obtain certain background information on the companies in the survey and to assess the extent to which the sample was representative of the Big Spring business community. Representativeness can be assessed by comparing the distribution of the firms by industry with the distribution calculated by the Census Bureau.

The location of the corporate headquarters reveals that for the most part the local economy is home-owned or Texas-owned. Nearly 73% of the respondents report that corporate headquarters is in Big Spring, while 87% have headquarters in the state of Texas. The predominance of locally owned businesses has its advantages and disadvantages when it comes to developing a business retention and expansion strategy. Since most firms are under local management, they will be quicker to respond to changes in the local business environment while it may take outside companies several months or even years to adapt to new conditions. However, the dearth of outside firms may limit the amount of capital coming into Big Spring to finance expansion.

The distribution of firms' ages is a healthy sign for Big Spring. The community has many young firms to provide growth and many established firms to provide stability. As for firm organization, Big Spring may be slightly dependent on sole proprietorships, partnerships, and closely held corporations at the expense of public corporations. Since public corporations have better access to outside capital, they might be the ones who could lead the way in business expansion.

SECTION B- COMMUNITY AND BUSINESS SERVICES

This section involves the assessment of the business community as to the area's strengths and weaknesses in regard to the costs of doing business in Big Spring. The areas that relate to the true cost of doing business in Big Spring include economic development efforts, capital availability, utilities, public services, taxes and regulations.

The first question designed for obtaining this information asked the respondents to rate several economic development programs according to their familiarity with them. The scale on which the programs were rated was a scale of 1 to 3, with 1 representing unfamiliar and 3 representing very familiar. The results are disappointing in the sense that the business community is relatively ignorant of the economic development programs in the community from which the businesses stand to benefit. Figure 1 presents these results in the form of the average score of the responses.

Figure 1.

SBA Loans	1.71
Industrial Revenue Bonds	1.54
Venture Capital Committee	1.31
Export Assistance Center	1.16

Notice that none of the programs scored higher than 2, a level equivalent to "somewhat familiar." Furthermore, very few businesses claim to be "very familiar" with the initiatives. An interesting result is that except for Midland's slightly higher familiarity with the Export Assistance Program, the scores on this question are almost identical between the two cities. A possible explanation for this phenomenon is that most information on these opportunities is passed on to the business community through the media. Since Midland and Big Spring are in the same media market (i.e., same television stations), the level of this information in both communities should be almost the same. This result shows that there might be some mutual benefit for the two cities, and possibly Odessa, if they cooperated in sharing the costs of television advertising for these programs. This cooperative effort would defray the cost associated with television and would be effective in disseminating the information in each community.

The next question asks the businesses to rate economic development efforts as to overall effectiveness. The largest number of businesses

(72) rated the efforts as only "fair," while a sufficient proportion (22) rated them as "poor." Only 45 respondents rated economic development initiatives in Big Spring as "good" or "excellent." The results to this question and the preceding one point to a possible lack of understanding of economic development in Big Spring.

The next question may be the single most important question in the survey when it comes to assessing what sorts of programs, policies, and initiatives will be the most effective in improving business conditions in Big Spring. The respondents were asked to evaluate several factors as to their satisfaction in regard to remaining, expanding, or relocating in Big Spring. The ratings are on a scale of 1 to 5 with 1 representing "very unsatisfied" and 5 representing "very satisfied." The average, (3) represents "neither satisfied nor unsatisfied." The average scores for each factor are listed in figure 2.

Figure 2.

Labor Cost	3.92
Gas Utilities	3.91
Land Availability	3.91
Electric Utilities	3.90
Transportation/access	3.74
Educational Resources	3.69
Land Zoning	3.67
Quality of Life	3.62
Police Protection	3.60
Land Cost	3.57
Waste Disposal	3.48
Permit Processes	3.43
Labor Supply	3.40
Local Gov't Cooperation	3.36
Medical Services	3.32
Profit Potential	3.30
Sewers	3.27
Regulatory Practices	3.27
Availability of Raw Materials	3.23
Availability of Capital	3.19
Drainage	3.06
Roads	3.04
Gov't Assistance Programs	2.98
Water Service	2.73

It should be encouraging that the Big Spring business community rates almost all of these attributes above average. Only government assistance programs and water service fall below average.

It seems plausible for analytical purposes to divide these attributes into at least four groups. The top group are those that scored at least 3.9 or better. These include labor cost, gas utilities, land availability, and electric utilities. These are the strengths of the community and should be touted as such when selling the community. The community should work to maintain these strengths.

The second group are those that were rated between 3.57 and 3.74, which includes transportation, education, zoning, quality of life, police protection, and land cost. These too are relative strengths, but they are not quite on the same level as the higher group. Further work should be done to see which of the attributes can be enhanced enough to reach the higher group.

The next group, or those that scored below the last group and above 3.19, are not necessarily the strengths of the community, but they certainly are not detrimental. They are perhaps the most likely candidates for improvement. The most interesting member of this group is "availability of capital." This attribute is of interest because in Midland it finished dead last. The possible discrepancy in the scores between the two cities could be due to timing as the Midland survey was conducted several months prior to the Big Spring study. Assuming that credit conditions did not dramatically improve since the Midland study, other explanations should be pursued. Different credit conditions in each of the two cities could also be ruled out because the businesses of both cities have access to the banks of the other cities. However, it should be pointed out that the samples of the two surveys differed substantially. Whereas the Big Spring survey was broadly based, the Midland survey concentrated on manufacturing and oil field businesses. If oilfield and manufacturing businesses are suffering from a lack of capital more than their counterparts, then we would expect the rating of availability of capital in Big Spring to be higher than that of

Midland. This seems to be the case as manufacturers and oil companies in Big Spring gave capital availability a rating of 2.86 compared to the rating of 2.78 for the city of Midland. Since manufacturers and oil companies represent a major component of employment in Big Spring, their difficulty with the credit markets should be explored further for possible solutions.

The remaining group (3.19 and below) are those that, although they were rated at least near average, are seen as the worst attributes of doing business in Big Spring. Efforts should be made to improve these attributes. If improvement is impossible or very expensive, economic development strategies should focus on industries for which the low scoring of these attributes is not detrimental.

The next question deals with the respondents' experiences with the city council and the zoning board. Very few of the respondents have had dealings with either of these bodies, but those that had gave them very high marks.

The respondents were also asked to rate their experiences with workers obtained from the city's educational and vocational training institutions. As would be expected, the firms had more experience with the graduates of the local high school and the experience with these graduates was very good. However, the experience with graduates of Howard College was rated slightly higher. The local job programs have been used by relatively fewer businesses and the satisfaction was much lower. Further, exemplifying the satisfaction of local educational opportunities was the fact that almost two-thirds of those responding felt that Big Spring had appropriate supplemental occupational training programs.

Section C-- Employment and Labor

This section gives information on the labor force of the surveyed businesses. Changes in the level of employment in the area have been significant over the past 5 years. From responses given in this section, the distribution of these changes across firms can be determined. Below is the distribution of percentage changes in the employment level of firms from 5 years ago to the time of the survey:

Figure 3.

-46% & below	16	**********
-36 to -45%	5	*****
-26 to -35%	8	********
-16 to -25%	18	**********
-6 to -15%	8	********
-5 to 5%	31	**********
6 to 15%	3	***
16 to 25%	4	****
26 to 35%	8	********
36 to 46%	2	**
46% & above	20	**********
No answer	28	

Some firms did quite well over the period, but more firms lost employees rather than gained them. For every firm that gained big there was one that did very poorly.

This section also elicits responses about the firms' expectations of employment growth over the next five years. Below is the distribution of expected growth rates from now to five years from now:

Figure 4.

-46% & below	4	****
-36 to -45%	0	
-26 to -35%	1	*
-16 to -25%	2	**
-6 to -15%	1	*
-5 to 5%	44	**********
6 to 15%	10	**********
16 to 25%	9	**********
26 to 35%	8	********
36 to 46%	7	*******
46% & above	24	**********
No answer	41	

This result is very encouraging in that businesses are expecting the coming years to be much better than the past. However, several businesses are still expecting large losses.

Combining these results we can see the size of the predicted employment level in comparison to the level of five years ago. Below are these results:

Figure 5.

-46% & below	7	*******
-36 to -45%	7	*******
-26 to -35%	3	***
-16 to -25%	8	********
-6 to -15%	6	******
-5 to 5%	29	**********
6 to 15%	1	*
16 to 25%	8	********
26 to 35%	5	*****
36 to 46%	2	**
46% & above	25	**********
No answer	50	

In spite of the expansions projected for the next five years, 31 firms will not be as large as they were five years ago.

The other critical finding in this section is that businesses in Big Spring require large numbers of trained workers. On average each firm reports that more than half of their workers require special training. This result underscores the need for educational opportunity in Big Spring. Other results show that businesses are very satisfied with the educational system, but advances in technology will require more and more training opportunities. Thus, Big Spring must continue to strive to provide more and more educational opportunities. Since 131 of the 151 firms train workers on-the-job, programs that work with companies to train workers on-the-job will be crucial to economic development.

Section D-- Suppliers

This section was designed to identify the commodities used in the production processes of Big Spring businesses. It identifies these commodities as to location of source and means of transportation to the Big Spring area. The complete results to this question are in appendix D. The list of commodities from which the respondents chose are all manufactured commodities and thus do not include any services which Big Spring businesses might be purchasing. Here are the numbers of firms purchasing each of the listed commodities:

Figure 6.

Paper	40
Chemicals	38
Electric/Electronic Equipment and Supplies	38
Petroleum	32
Instruments/Photographic/ Medical/Optical Goods	22
Plastics	20
Fabricated Metals	20
Wood	20
Stone/Clay/Glass/Concrete	18
Primary Metals	16
Raw Food	16
Textiles	15

As for the location of the suppliers of these goods, the results show that very few commodities are obtained primarily from the Big Spring area. Only raw food, wood, petroleum, and stone/clay/glass/concrete are bought primarily from Big Spring suppliers. This result is fairly consistent with another study of the Permian Basin which shows that millions of dollars leave the local economy as businesses are forced to rely on suppliers outside the area.

The most interesting result of this section is the frequency of different types of transport for the commodities. Truck transportation is used almost exclusively, while the railroad is seldom used. Perhaps the mix of businesses in Big Spring does not take proper advantage of the railroad as a resource. Railroads generally have cost advantages over trucks in the transport of dense products delivered in bulk such as grain.

The rest of this section is concerned with the firms' evaluation of various supply problems. They were asked to rate how different potential supply problems affected their particular businesses. Each potential problem was rated on a scale of 1 to 5 with 1 representing little effect on profitability and 5 representing great effect.

Fluctuations in the supply price	3.12
Materials shortages	2.89
Unreliable suppliers	2.81
Supply transport problems	2.79

It is encouraging that despite the relative geographic isolation of Big Spring that "supply transport problems" affected profitability the least. In fact, all four potential problems should be exacerbated by isolation, but none of the four are shown to be serious problems. There are two possible ways of interpreting this result. It could be argued that this result shows that modern transportation technology has mitigated the problem of isolation and lessened the advantage of businesses in major metropolitan areas. In some sense this may be true, but this explanation is not completely satisfying. The other possible explanation is that Big Spring has primarily attracted and fostered businesses that by their nature are insensitive to supply problems. The extent to which either of these explanations approaches the truth must be examined. If the

first is true, then Big Spring should attract industries that have traditionally avoided it due to geographic regions. If the second is true, it would be fruitless to attract those industries.

One type of industry that Big Spring should pursue is the "footloose" or amenity-oriented industry. Amenity-oriented industries are those whose main input is labor, usually highly skilled. The other inputs and outputs are very inexpensive to ship, thus geography plays a very small role in their locational decisions. Therefore these industries are "footloose" in the sense that their locational decision will affect the costs of their non-labor inputs and outputs very little. So industries of this type are attracted by such amenities as good weather and good public services. The firms themselves benefit from these in a number of ways. Good weather lowers heating costs and fire and police protection lowers the losses due to fire and crime, for example. However, the main benefit of the amenities for the firms is that labor (especially highly skilled labor) is attracted by them. Studies show that workers are willing to forego higher wages to work in a community with high levels of these amenities. Thus, the cost of labor to these firms is lower in cities with good weather and extensive (yet inexpensive) provision of public goods. However, it should be stressed that this is not a justification for huge increases in public services. In the same way that workers and firms are drawn from areas with too few public goods, they can be drawn away from areas with high levels in the cost of the public goods and services in terms of tax dollars when the cost begins to exceed the benefit.

Section E- Customers and Competitors

This section was intended to uncover any problems that Big Spring businesses have in marketing their products and to evaluate how businesses in the area are affected by competitive pressures. The results show that most firms have a customer base in Howard County and only 13 firms look outside the state for their primary markets.

Of the few firms that claimed important foreign markets, the largest number said that Canada was their primary market. There is nothing unusual about this as Canada is the United States' largest trading partner; however, it may be reflective of American business' reluctance to deal with markets of "different cultures." Different languages and cultures present tremendous costs and barriers to foreign trade. These barriers are especially costly for Big Spring and the Permian Basin as Mexico and the rest of Latin America is a proximate market which few local businesses dare to enter for many cultural reasons. Latin America is in need of many goods that can be produced in the Permian Basin. Much work has been done to bridge the cultural gaps, but much more will certainly benefit Big Spring and its potential Latin American trading partners.

The third question of the section again shows the failure of Big Spring businesses to use the railways. None of the firms reported shipping products on rail, whereas three reported air usage and one reported using shipment by water (we can safely assume that this was in conjunction with some other mode).

The results also show that Big Spring businesses have relatively diversified customer bases in the sense that they are not dependent on their top customers. The Midland study shows a greater dependence on large customers. However, as pointed out earlier, the Midland study concentrated on manufacturing and petroleum, industries marked by a small number of buyers.

The answers to the next question show that Big Spring businesses are fairly optimistic about their short term prospects. Ninety-four firms say that they are at least "somewhat likely" to expand their markets next year.

The results show that very few firms sell in any market other than the private domestic market. Very few firms sell to government entities or to foreigners. Programs to assist firms in government bidding and marketing abroad may help change this situation. Government bidding could be especially lucrative in Big Spring which has a large representation of federal and state employment. There doesn't seem to be a lot of interest in exporting by Big Spring businesses as only 11 wish to do so but aren't.

Section F- Physical Facilities

This section is used to derive information on the state of the facilities used by Big Spring businesses. An interesting result is that Big Spring businesses show a much higher rate of ownership of facilities than Midland businesses. Those that do lease had a wide variety of times left on their leases as opposed to Midland businesses, which typically had very short terms left on their leases. The differences are probably attributable to the time of the studies and changes in the real estate market in the Permian Basin.

The respondents seem very satisfied with the size of their facilities as only 20 firms cited space shortage problems. Only 34 said that if they were to expand they would be "very unlikely" to remain in the same location. They are also satified with their machinery as only 3 claimed to have inadequate machinery and 93 claimed to have the best available. Waste is a problem for very few of the businesses and most have it hauled way.

While many firms are expecting a larger market, a substantially lower number expect to have to expand their facilities. The largest number of those that are expecting to expand are planning expansion in 1990, while 5 firms are waiting for appropriate changes in economic and business conditions before expanding. Only 8 said they would expand outside the Big Spring area, but those 8 said they would stay in the state. The leading reasons for possibly moving are changing markets (15), building overcrowded (9), no land to expand (3), ingress/egress problems (3), high property taxes (3), and workman's comp (3). Public policy may do little to affect the first three reasons, but ingress/egress problems, property taxes, and workman's comp are issues that the local and state government should address in order to promote economic development. Only 8 firms would refuse to consider suitable sites in the county when planning moving or expansion.

Sixty-four businesses are planning at least "some" modernization or improvement over the next two years, but only four expect it to be substantial. Although most businesses were satisfied with their machinery, 42 say that there are certain technological innovations that could improve their competitive position. Modernization and technological innovation requires large sums of capital and the availability of this capital is essential to the success of the business retention and expansion strategy. Thus, the survey questioned firms about how they planned to finance expansion, modernization, or technological innovation. Seventy-two firms would use short or long term bank financing, while only 49 would use internal sources such as cash flow and retained earnings. This is also in contrast with Midland who seemed to shun all outside financing. It would be interesting to know if there was a change in attitude about local capital market conditions since the Midland study or if the differences in the sample of the two cities account for the difference. However, for the 36 firms with plans to develop new product lines, there seems to be a greater tendency to avoid capital markets.

Section G- Trends and Outlooks

This section explores the expectations of Big Spring business over the next few years. The businesses that reported their growth rates for the past five years seem to have actually done quite well through the difficult years in the Permian Basin, however, the 66 that did not answer this question may be the ones that did not fare so well. Thus, the result to the second question of this section should be viewed with a healthy dose of skepticism.

The results show that cash flow is only a serious problem for 8 of the businesses, but only 41 firms say it is no problem at all. Only 22 businesses have problems with seasonal fluctuations.

An interesting result is that only 13 firms felt that they would have a difficult time borrowing the money that they needed, but 53 firms felt that some sort of government loan program could help them with their financial needs. Apparently, businesses feel that although the money is available, the market rate of interest is prohibitive.

The next question of this section involves the businesses rating the effect of certain local economic conditions on their financial condition. Five represented "very important" to the condition

of the company, while one represented "very unimportant." The results are listed below:

Figure 7.

Labor costs	4.15
Workmen's Comp	4.14
Unemployment insurance	3.92
Local property tax	3.90
Selling costs	3.81
Material costs	3.81
Energy cost	3.77
Interest rates	3.53
Transportation cost	3.48

Interestingly enough, labor costs are cited as having the most effect on the businesses at a time when wages for the area are not particularly high. The answer to this seemingly paradoxical situation is that workmen's comp and unemployment insurance costs are rated almost as high. Thus, the costs of these systems raise the true cost of labor and are preventing local businesses from taking advantage of the low wage rates of the Permian Basin. Reform of these systems by the state legislature is important for economic development throughout the state, not just for Big Spring.

While many businesses felt that government loan programs could help their financial condition, only 11 firms have taken part in the existing programs. Of those that have, SBA loans are the most popular. Six firms claim to have been turned down by these programs.

The firms were also asked about how certain factors affect their operations. Again 5 represents very important.

Figure 8,

Labor productivity	3.42
Domestic competition	3.27
Labor availability	3.17
Saturated or changing markets	3.10
Transportation problems	2.30
Insufficient space	2.05
Foreign imports	2.01
Out-of-date machinery	2.00
Export markets	1.66

These results confirm other results in that again the businesses are little concerned with the international economies and are not affected by insufficient space or machinery. They also once again reveal concern about the cost of labor.

Big Spring businesses have a fairly optimistic view of the future as only 4 firms are projecting decline over the next two years. The final question of the survey asks the respondents to rate the following events as to their probability of occurrence. Five represents very likely and one represents very unlikely.

Figure 9.

Continued growth in current market	3.86
Expansion of domestic markets	2.88
Acquisition of other companies	2.34
Merger	2.02
Joint ventures	1.89
Relocation	1.65
Expansion into foreign markets	1.61

Conclusion

This survey provides an invaluable resource on the Big Spring business community. It will not only assist in developing a strategy for business retention and expansion but also in other economic development strategies.

A. COMPANY DESCRIPTION AND HISTORY

A.1 What kind of business are you in?

Each * represents 2 obs.

Manufacturing	18	*********
Wholesale /Distribution	8	****
Retail	44	**********************
Services	70	**********************************
Oil/Gas Production	5	***
NO ANSWER	6	

A.2 What general category is your production?

Food	9	*********
Textiles/Apparel	4	****
Wood/Furniture	1	*
Printing	1	*
Chemicals	1	*
Petr./Rubber/Plast.	12	************
Stone/Glass/ Concrete	3	***
Metals/metal prod.	1	*
Electric mach.	3	***
Trans. equip.	3	***
Services	38	**************************************
Fin.,Ins.,Real Est.	15	***************
Wholesale Trade	1	*
Retail Trade	22	**********************
Construction	5	*****
Trans.,Comm.,Util	3	***
Agriculture	2	**
Other	6	******
No answer	21	

A.3 Where are your corporate headquarters located ?

BIG SPRING	TX	98
ODESSA	TX	3
MIDLAND	TX	3
DALLAS	TX	7
LUBBOCK	TX	3
SAN ANGELO	TX	1
FT. WORTH	TX	1
TYLER	TX	1
HOUSTON	TX	1
WASHINGTON	DC	2
ATLANTA	GA	2
OKLAHOMA CITY	OK	1
KANSAS CITY	MO	1
CINCINNATI	OH	1
HORWARD	CN	1
FRANKLIN PARK	IL	1
SHENENDOAH	IA	1
JACKSONVILLE	FL	1
AKRON	OH	1
BLOOMINGTON	IL	1
ST. LOUIS	MO	1
SKOKIE	IL	1
LOS ANGELES	CA	1
AKRON	OH	1
NO ANSWER		16

A.4 How many locations does your company have in the Big Spring area?

Each * represents 5 obs.

1	128	*************************
2	13	***
3-5	6	**
6-10	0	
11+	1	*
No Answer	3	

A.5 How many years has your company been in business ?

Each * represents 2 obs.

Less than 1 yr.	5	***
1-5	17	*********
6-10	30	***************
11-50	76	**************************************
50+	21	**********
No Answer	2	

A.6 How is your firm organized?

Each * represents 2 obs.

Corporation (public)	20	**********
Corporation (close held)	67	**********************************
Partnership	9	*****
Sole Proprietorship	46	**********************
Government/non-profit	4	**
Other	1	*
No Answer	4	

B. COMMUNITY/BUSINESS SERVICES

B.1 How familiar are you with the following economic development programs?

1 = Not Familiar
2 = Somewhat Familiar
3 = Very Familiar

Industrial Revenue Bonds

Each * represents 2 obs.

1	78	**
2	61	*********************************
3	10	*****
No answer	2	

MEAN = 1.5436

SBA Financing

Each * represents 2 obs.

1	56	**********
2	80	**********
3	13	*******
No answer	2	

MEAN = 1.7114

Venture Capital Committee

Each * represents 5 obs.

1	107	**********
2	35	*******
3	5	*
No answer	4	

MEAN = 1.3061

Export Assistance Center

Each * represents 5 obs.

1	127	**********
2	19	****
3	2	*
No answer	3	

MEAN = 1.1554

B.2 How would you rate local economic development effects?

Each * represents 2 obs.

no opinion	6	***
poor	22	**********
fair	72	**********
good	42	**********
excellent	3	**
No answer	6	

MEAN = 3.0966

B.3 How satisfied are you with the following whenconsidering remaining, expanding, or relocating in the Big Spring area?

key:
1 - very unsatisfied, 2 - somewhat unsatisfied,
3- neither satified or notsatisfied,
4 - somewhat satisfied, 5 - very satisfied

Labor cost

Each * represents 2 obs.

1	0	
2	10	*****
3	27	**********
4	68	**********
5	36	**********
No answer	10	

MEAN = 3.9220

Labor supply

Each * represents 2 obs.

1	10	*****
2	25	**********
3	27	**********
4	58	**********
5	22	**********
No answer	9	

MEAN = 3.4014

Land cost

Each * represents 2 obs.

1	3	**
2	20	**********
3	36	**********
4	57	**********
5	25	**********
No answer	10	

MEAN = 3.5745

Land availability

Each * represents 2 obs.

1	4	**
2	7	****
3	28	**********
4	60	**********
5	41	**********
No answer	11	

MEAN = 3.9071

Land zoning

Each * represents 2 obs.

1	1	*
2	13	*******
3	40	********************
4	58	******************************
5	24	************
No answer	15	

MEAN = 3.6691

Permit processes

Each * represents 2 obs.

1	8	****
2	11	******
3	53	***************************
4	41	*********************
5	22	***********
No answer	16	

MEAN = 3.4296

Transportation/access

1	5	*****
2	16	**********
3	27	**************
4	49	*************************
5	39	********************
No answer	15	

MEAN = 3.7426

Availability of raw materials

Each * represents 2 obs.

1	8	****
2	15	********
3	57	******************************
4	32	**********
5	14	*******
No answer	25	

MEAN = 3.2302

Gov't assistance programs

Each * represents 2 obs.

1	14	*******
2	16	********
3	66	**********************************
4	17	*********
5	12	******
No answer	26	

MEAN = 2.9760

Quality of life (lifestyle)

Each * represents 2 obs.

1	6	***
2	19	**********
3	29	***************
4	57	******************************
5	31	****************
No answer	9	

MEAN = 3.6197

Roads

1	20	**********
2	41	*********************
3	16	********
4	45	************************
5	21	**********
No answer	8	

MEAN = 3.0420

Sewers

1	10	**********
2	32	**********
3	29	**********
4	48	************************
5	21	**********
No answer	11	

MEAN = 3.2714

Water service

1	28	**********
2	43	**********
3	20	**********
4	34	**********
5	14	**********
No answer	12	

MEAN = 2.7338

Drainage

1	12	**********
2	38	**********
3	35	**********
4	41	**********
5	15	**********
No answer	10	

MEAN = 3.0638

Electric utilities

Each * represents 2 obs.

1	3	**
2	9	*****
3	33	**********
4	52	**********
5	46	**********
No answer	8	

MEAN = 3.9021

Gas utilities

Each * represents 2 obs.

1	0	
2	5	***
3	42	**********
4	54	**********
5	40	**********
No answer	10	

MEAN = 3.9149

Police protection

Each * represents 2 obs.

1	6	***
2	16	********
3	37	**********
4	53	**********
5	30	**********
No answer	9	

MEAN = 3.5986

Waste disposal

1	4	****
2	19	**********
3	45	**********
4	48	**********
5	23	**********
No answer	12	

MEAN = 3.4820

Medical services

1	7	*******
2	30	**********
3	38	**********
4	41	**********
5	24	**********
No answer	11	

MEAN = 3.3214

Regulatory practices

Each * represents 2 obs.

1	3	**
2	18	*********
3	63	**********
4	41	**********
5	10	*****
No answer	16	

MEAN = 3.2741

Educational resources

Each * represents 2 obs.

1	4	**
2	14	*******
3	32	**********
4	63	**********
5	28	**********
No answer	10	

MEAN = 3.6879

Profit potential of area

Each * represents 2 obs.

1	8	****
2	30	***************
3	28	**************
4	54	***************************
5	19	**********
No answer	12	

MEAN = 3.3309

Local gov't cooperation

1	11	**********
2	15	***************
3	49	**
4	42	**
5	23	**********************
No answer	11	

MEAN = 3.3643

Availability of capital

1.00	15	***************
2.00	18	******************
3.00	46	**
4.00	45	***
5.00	15	***************
No answer	12	

MEAN = 3.1942

B.4 Have you ever had an application pending before either of the following bodies and how satisfied were you with the results?

key:
1 - very unsatisfied, 2 - somewhat unsatisfied,
3 - neither satified or notsatisfied,
4 - somewhat satisfied, 5 - very satisfied

County (City) Council

Yes	24	
No	113	
No answer	12	

1	3	***
2	4	****
3	1	*
4	6	******
5	15	***************
No answer	122	

MEAN = 3.8966

Planning/Zoning Board

Yes	19	
No	117	
No answer	15	

1	0	
2	4	****
3	1	*
4	6	******
5	13	*************
No answer	127	

MEAN = 4.1667

B.5 Please indicate if you have obtained employees from the following institutions and how satisfied you were:

Local High School

Yes	78	
No	56	
No answer	17	

1	4	****
2	7	*******
3	13	*************
4	30	******************************
5	25	*************************
No answer	72	

MEAN = 3.8228

Community College

Yes	53	
No	75	
No answer	23	

1	2	**
2	3	***
3	11	**********
4	28	****************************
5	14	**************
No answer	93	

MEAN = 3.8448

County (city) Jobs Dev't program

Yes	14	
No	110	
No answer	27	
1	2	**
2	6	******
3	4	****
4	3	***
5	5	*****
No answer	131	

MEAN = 3.1500

B.6 Do you feel there are appropriate supplemental education and training programs available in the community to meet these changing and future occupational needs?

Yes	94	
No	48	
No answer	9	

C. Employment and Labor

C.1 How are your workers trained?

Each * represents 5 obs.

Does not total 151 due to multiple responses

On the job	131	**************************
Vocational school	23	*****
Union program	0	
Trade school	11	**
University	16	***
Other	6	**
No answer	11	

C.2 How do you obtain replacement employees?

Each * represents 4 obs.

Does not total 151 due to multiple responses

Word of mouth	97	************************
State employment service	36	*********
Newspaper	30	******
Sign out front	3	*
Union hall	0	
Vocational school	1	*
Private employment service	15	****
Other	5	**
No answer	19	

C.3 What percentage of your workforce lives inside this county?

Each * represents 5 obs.

0-25%	7	**
26-50%	3	*
51-75%	4	*
75% +	129	**************************
No answer	8	

D. Suppliers

D.1-D.3 What are the main components used in your operation? What is your source of materials? How do your supplies reach you?

Raw Food	16	****************
Big Spring	8	********
Texas	4	****
USA	4	****
Foreign	0	
Truck	18	******************
Rail	0	
Air	0	
Ship	0	
Mail	2	**
Textiles	15	***************
Big Spring	6	******
Texas	3	***
USA	5	*****
Foreign	2	**
Truck	10	**********
Rail	0	
Air	0	
Ship	0	
Mail	4	****
Wood	20	********************
Big Spring	14	**************
Texas	3	***
USA	1	*
Foreign	2	**
Truck	15	***************
Rail	2	**
Air	0	
Ship	0	
Mail	1	*

Paper	40	**
Big Spring	17	*****************
Texas	12	************
USA	11	**********
Foreign	1	*
Truck	27	**************************
Rail	0	
Air	0	
Ship	0	
Mail	8	********
Chemicals	38	**********************************
Big Spring	13	************
Texas	19	*******************
USA	9	*********
Foreign	1	*
Truck	27	**************************
Rail	0	
Air	0	
Ship	0	
Mail	2	**
Petroleum	32	********************************
Big Spring	21	**********************
Texas	4	****
USA	1	*
Foreign	0	
Truck	20	********************
Rail	1	*
Air	1	*
Ship	0	
Mail	1	*
Plastics	20	********************
Big Spring	1	*
Texas	8	********
USA	8	********
Foreign	1	*
Truck	15	***************
Rail	2	**
Air	0	
Ship	0	
Mail	2	**

Stone/Clay/Glass/ Concrete	18	******************
Big Spring	11	**********
Texas	2	**
USA	5	*****
Foreign	1	*
Truck	12	************
Rail	0	
Air	0	
Ship	0	
Mail	1	*
Primary Metals	16	****************
Big Spring	7	*******
Texas	3	***
USA	6	******
Foreign	0	
Truck	12	************
Rail	0	
Air	0	
Ship	0	
Mail	3	***
Fabricated Metals	20	**********************
Big Spring	5	*****
Texas	5	*****
USA	8	********
Foreign	0	
Truck	15	***************
Rail	0	
Air	0	
Ship	0	
Mail	3	***
Electric and Electronic Equipment and Supplies	38	**
Big Spring	9	*********
Texas	13	*************
USA	15	***************
Foreign	3	***
Truck	24	************************
Rail	0	
Air	5	*****
Ship	3	***
Mail	7	*******

Instruments/photographic/medical/ optical goods	22	**********
Big Spring	5	*****
Texas	8	********
USA	10	**********
Foreign	0	
Truck	15	***************
Rail	1	*
Air	3	***
Ship	2	**
Mail	5	*****

D.4 On a five point scale with 5 representing great affect and 1 representing little effect, how much do the following affect the profitability of your business?

Materials shortages

1	42	**********
2	11	**********
3	17	**********
4	15	**********
5	34	**********
No answer	32	

MEAN = 2.8992

Supply transport problems

1	48	**********
2	10	**********
3	16	**********
4	15	**********
5	30	**********
No answer	32	

MEAN = 2.7395

Unreliable suppliers

1	40	**********
2	18	**********
3	17	**********
4	17	**********
5	29	**********
No answer	30	

MEAN = 2.8099

Fluctuations in the price of supplies

1	29	**********
2	18	**********
3	19	**********
4	23	**********
5	34	**********
No answer	28	

MEAN = 3.1220

E. Customers and Competitors

E.1 Where are most of your customers located?

Each * represents 2 obs.

Within county	66	**********
Big Spring	29	**********
Within Texas	32	**********
Region of country	5	***
U.S.	7	****
International	1	*
No answer	11	

E.2 Where are your primary foreign markets?

Canada	6	******
Latin America	3	***
Western Europe	4	****
Eastern Europe	1	*
Asia	1	*
Africa	0	
Other	3	***
No answer	133	

E.3 How do you normally transport finished products?

Truck	43	**********
Rail	0	
Air	3	***
Ship	1	*
Mail	16	**********
Other	3	***
No answer	85	

E.4 How dependent is your company on its top three customers?

Minimally	45	**********
A little	14	**********
Somewhat	28	**********
Quite	9	*********
Very	18	**********
No answer	37	

E.5 How likely are you to widen your market next year?

Very unlikely	23	**********
Somewhat unlikely	14	**********
Somewhat likely	37	**********
Quite likely	19	**********
Very likely	38	**********
No answer	20	

E.6 What percentage of your output is sold to:

Foreign buyers

0-20%	13	**********
21-40%	0	
41-60%	1	*
No answer	137	

Federal Government

0-20%	28	**********
21-40%	1	*
41-60%	2	**
61-80%	0	
81-100%	2	**
No answer	118	

State Government

0-20%	31	**********
21-40%	1	*
41-60%	2	**
No answer	117	

Local government

0-20%	32	**********
21-40%	1	*
41-60%	3	***
No answer	115	

Prime contractor which sells to government

0-20%	5	*****
21-40%	3	***
41-60%	2	**
61-80%	1	*
81-100%	1	*
No answer	139	

E.8 If you are not in exporting, are you interested in doing so?

Each * represents 3 obs.

Yes	11	****
No	99	**********
No answer	41	

E.8 Which of the following accurately describes your customers?

Each * represents 2 obs.

Does not total 151 due to multiple responses

Customers	84	**********
Retailers	15	********
Food Industry	1	*
Textiles/apparel	1	*
Paper	1	*
Printing	1	*
Chemicals	1	*
Petroleum refin.	7	****
Rubber/plastics	2	*
Stone/clay/glass concrete	1	*
Metals	1	*
Non-electric machinery	1	*
Electric/ electronic eqp	1	*
Transportation equipment	2	*
Other	10	*****
No answer	36	

F. Physical Facilities

F.1 Do you own or lease this location?

Each * represents 2 obs.

Own	94	**********
Lease	51	**********
No answer	6	

F.2 How many years do you have left on your lease?

02		**
13		**********
24		****
33		***
42		**
58		********
More than 5 6		*******
No answer	113	

F.3 What is the property size of your location in acres?

Each * represents 2 obs.

0-5	55	*****************************
5-10	7	****
11-50	13	*******
51-100	3	**
101-500	4	**
501-1000	1	*
Greater than 1000	13	*******
No answer	55	

F.4 About how large is your building in square feet?

Each * represents 5 obs.

0-20,000	101	*********************
20,001-60,000	14	***
60,001-100,000	5	*
100,001-140,000	1	*
140,001-180,000	1	*
180,001-220,000	0	
220,001-260,000	2	*
260,001-300,000	2	*
No answer	25	

F.5 Is the space here sufficient for your needs?

Each * represents 5 obs.

Yes	126	**********
No	20	****
No answer	5	

F.6 If you expand your business how likely are you to remain in this location?

Each * represents 2 obs.

Very unlikely	34	*****************
Somewhat unlikely	14	*******
Neither likely or unlikely	10	*****
Somewhat likely	14	*******
Very likely	70	**********************************
No answer	9	

F.7 Is your machinery adequate?

Each * represents 2 obs.

Best available	93	**
Could be better	35	*****************
No	3	**
No answer	20	

F.8 Does your operation produce substantial waste?

Each * represents 5 obs.

Yes	15	***
No	130	**************************
No answer	6	

F.9 How is the waste disposed of?

Each * represents 2 obs.

Hauled off	64	*********************************
Processed by us	11	******
Processed by others	14	*******
Burned	5	***
Released into sewer	6	***
Other	5	***
No answer	46	

F.10 How likely are you to expand within the next two years?

Very unlikely	49	************************
Somewhat unlikely	22	**********
Neither likely nor unlikely	20	**********
Somewhat likely	30	**********
Very likely	26	**********
No answer	4	

F.11 If you chose, very likely when would you expand?

1990	12
1991	1
1992	1
Within 5 years	1
Dependent on a change in business environment	5
No answer	132

F.12 If you chose "very likely," where would you expand?

Within the city	24	**********
Within Big Spring area	18	*******
Within the state	8	***
Other	0	
No answer	101	

F.13 If you are planning a move, for expansion or other reasons, why?

Changing markets	15	******
Building overcrowded	9	****
No land to expand	3	*
Access/egress problems	3	*
Crime/vandalism	2	*
Low worker productivity	0	
Environmental concerns	0	
Rigid code enforcement	2	*
High property taxes	3	*
High state taxes	1	*
Workman's Compensation	3	*
Other	4	**
No answer	115	

F.14 Would you consider a site in this county that meets your needs?

Yes	42	**********
No	8	***
Uncertain	7	***
No answer	94	

F.16 How much modernization or improvement of your current buildings and machinery do you anticipate during the next two years?

Each * represents 2 obs.

None	34	**********
Very little	43	**********
Some	52	**********
Quite a lot	10	*****
Substantial	4	**
No answer	8	

F.17 Are there technological innovations that would enable you to keep, improve your competitive condition, or improve your firms earnings if you were able to employ them?

Each * represents 2 obs.

Yes	42	**********
No	70	**********
Uncertain	24	**********
No answer	15	

F.19 Which of the following means would your company use to finance expansion or modernization or introduction of new technology?

Does not total to 151 due to multiple responses

Each * represents 2 observations

Short term financing	54	**********
Long term financing	18	**********
Government financial asst.	8	****
Venture capital	4	**
Parent company	9	********
Cash flow	36	**********
Retained earning	13	*******
New owner equity	3	**
Merger/acquisition/ outside equity	2	*
Other	2	*
No Answer	40	

F.20 Does your company have any plans for developing new products?

Each * represents 2 obs.

Yes	36	**********
No	97	**********
No answer	18	

F.21 If yes, how would development be financed?

Short term bank financing	5	*****
Long term financing	7	*******
Government financial asst.	5	**
Venture capital	2	*
Parent company	5	*****
Cash flow	15	**********
Retained earning	8	******
New owner equity	2	*
Merger/acquisition/ outside equity other	1	*
No answer	113	

G. Trends and Outlooks

G.1 In what range are your firms sales?

Each * represents 2 obs.

Less than 1M	66	**********
$1-5M	39	**********
$6-10M	3	**
$11-25M	5	***
$26-50M	4	**
$51-100M	3	**
Over $100M	6	***
No answer	25	

G.2 What has been your average annual growth in the past five years in percent terms?

0-5%	23	**********
6-10%	22	**********
11-20%	21	**********
21-30%	10	**********
31-40%	1	*
41-50%	4	****
51-60%	0	
61-70%	1	*
71-80%	1	*
81-90%	0	
91-100%	2	**
No answer	66	

G.3 How serious of a problem is cash flow in your business?

Each * represents 2 obs.

No problem	41	**********
Somewhat problematic	59	**********
Quite a problem	30	**********
Serious problem	8	****
No answer	13	

G.4 Is your business seasonal?

Each * represents 2 obs.

Very much	22	**********
Somewhat	56	**********
Not really	59	**********
No answer	14	

G.5 How can the government help meet your financial needs?

Short term loans	6	******
Long term loans	12	**********
Loan guarantees	8	********
Low interest loans	27	**********
Other	10	**********
No answer	88	

G.6 Do you anticipate borrowing the money you need?

Each * represents 5 obs.

Yes	13	***
No	114	**********
No answer	24	

G.7 How important are the following factors to the financial condition of your company?

5 = very important, 1 = very unimportant

Material Costs

Each * represents 2 obs.

1	15	********
2	11	******
3	17	**********
4	20	**********
5	61	**********
No answer	26	

MEAN = 3.8145

Labor costs

Each * represents 2 obs.

1	10	*****
2	3	**
3	18	**********
4	27	**********
5	73	**********
No answer	20	

MEAN = 4.1450

Interest rates

Each * represents 2 obs.

1	21	**********
2	13	*******
3	26	**********
4	13	*******
5	55	**********
No answer	23	

MEAN = 3.5313

Selling costs

Each * represents 2 obs.

1	15	********
2	8	****
3	22	**********
4	19	**********
5	60	**********
No answer	27	

MEAN = 3.8145

Transportation costs

1	21	**********
2	7	*******
3	26	**********
4	27	**********
5	40	**********
No answer	30	

MEAN = 3.4793

Workmen's compensation

Each * represents 2 obs.

1	15	********
2	7	****
3	11	******
4	10	*****
5	89	**********
No answer	19	

MEAN = 4.1439

Unemployment insurance

Each * represents 2 obs.

1	14	*******
2	10	*****
3	17	*********
4	21	**********
5	69	**********
No answer	20	

MEAN = 3.9237

Energy costs

1	12	**********
2	7	*******
3	27	**********
4	31	**********
5	49	**********
No answer	25	

MEAN = 3.7778

Local property tax

Each * represents 2 obs.

1	9	*****
2	9	*****
3	20	**********
4	32	**********
5	53	**********
No answer	28	

MEAN = 3.9024

Other

Midpoint	Count	
1	4	****
2	0	
3	2	**
4	1	*
5	12	**********
No answer	132	

MEAN = 3.3636

G.8 Have you ever used any federal, state, or local loan program?

Each * represents 5 obs.

Yes	11	***
No	125	**********
No answer	15	

G.9 Which program?

EDA Loan	0	
EDA Loan Guarantee	0	
SBA Loan (7A)	3	***
SBA Loan (503)	0	
SBA Loan Guarantee	1	*
County (city) loan	1	*
Industrial revenue bond	3	***
Other	2	**
No answer	141	

G.10 Have your ever attempted to use one of these programs and been denied?

Each * represents 5 obs.

Yes	6	**
No	113	**********
No answer	32	

G.11 How important are the following factors to your current operation? (5 = very important, 1 = very unimportant)

Foreign imports

Each * represents 2 obs.

1	77	**********
2	6	***
3	7	****
4	10	*****
5	17	*********
No answer	34	

MEAN = 285

Domestic competition

1	27	**********
2	7	*******
3	27	**********
4	26	**********
5	34	**********
No answer	30	

MEAN = 3.2727

Saturated or changing markets

1	34	**********
2	9	*********
3	23	**********
4	23	**********
5	33	**********
No answer	29	

MEAN = 3.0984

Out-of-date machinery

Each * represents 2 obs.

1	66	**********
2	18	*********
3	12	******
4	12	******
5	10	*****
No answer	33	

MEAN = 2.0000

Insufficient space

Each * represents 2 obs.

1	64	**********
2	14	*******
3	24	**********
4	5	***
5	12	******
No answer	32	

MEAN = 2.0504

Transportation problems

Each * represents 2 obs.

1	55	**********
2	11	******
3	23	**********
4	17	*********
5	11	******
No answer	34	

MEAN = 2.2991

Export markets

Each * represents 2 obs.

Midpoint	Count	
1	84	**********
2	7	****
3	13	*******
4	4	**
5	8	****
No answer	35	

MEAN = 1.6638

Labor productivity

1	24	**********
2	9	*********
3	24	**********
4	20	**********
5	44	**********
No answer	30	

MEAN = 3.4215

Labor availability

1	33	**********
2	5	*****
3	26	**********
4	24	**********
5	34	**********
No answer	29	

MEAN = 3.1721

G.13 Over the next two years, are you anticipating:

Each * represents 2 obs.

Accelerated growth	32	**********
Same rate of growth	54	**********
Slowed rate of growth	34	**********
No growth	14	*******
Decline	4	**
No answer	13	

G.14 Five years from now, how likely is your company to be involved in the following: (5 = very likely, 1 = very unlikely)

Acquisition of other companies

Each * represents 2 obs.

1	67	**********************************
2	9	*****
3	17	*********
4	11	******
5	24	************
No answer	23	

MEAN = 2.3437

Merger of your company with others

Each * represents 2 obs.

1	75	**************************************
2	8	****
3	19	**********
4	10	*****
5	13	*******
No answer	26	

MEAN = 2.0240

Continued growth in current markets

1	16	********
2	7	*******
3	23	************
4	39	********************
5	44	**********************
No answer	22	

MEAN = 3.6822

Expansion of domestic markets

1	40	********************
2	13	*******
3	18	*********
4	26	*************
5	26	*************
No answer	28	

MEAN = 2.8780

Expansion into (of) foreign markets

Each * represents 2 obs.

1	88	***
2	9	*****
3	9	*****
4	7	****
5	6	***
No answer	32	

MEAN = 1.6050

Joint ventures with other firms

Each * represents 2 obs.

1	82	***
2	9	*****
3	13	*******
4	11	******
5	11	******
No answer	25	

MEAN = 1.8889

Relocation to another region of the country

Each * represents 2 obs.

1	92	**
2	8	****
3	9	*****
4	5	***
5	10	*****
No answer	27	

MEAN = 1.6532

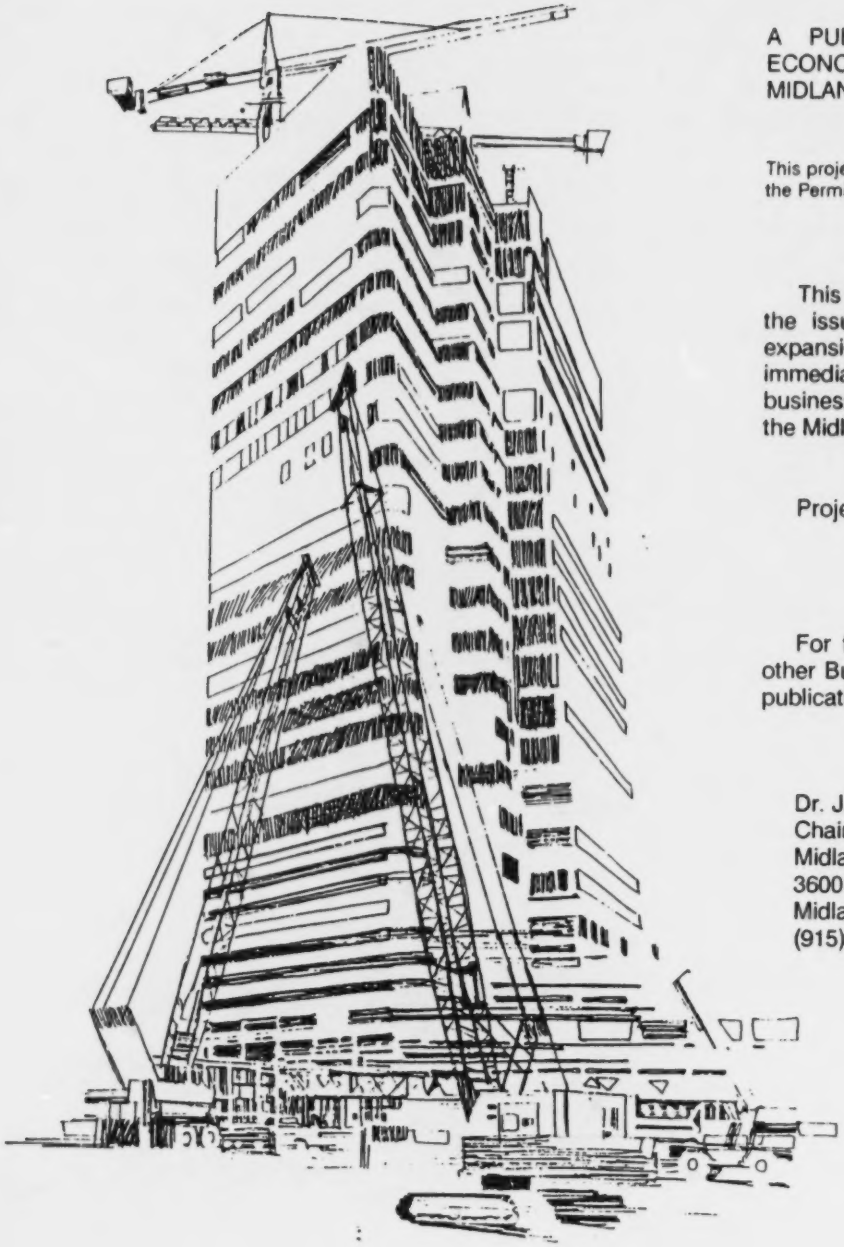
MIDLAND BUSINESS RETENTION AND EXPANSION SURVEY

A PROJECT DONE IN COOPERATION WITH:

SOUTHWESTERN BELL
MIDLAND CHAMBER OF COMMERCE
PERMIAN BASIN PRIVATE INDUSTRY COUNCIL
MIDLAND COLLEGE BUSINESS AND ECONOMIC DEVELOPMENT CENTER

SEPTEMBER, 1989

MIDLAND BUSINESS RETENTION AND EXPANSION SURVEY



A PUBLICATION OF THE BUSINESS AND ECONOMIC DEVELOPMENT CENTER OF MIDLAND COLLEGE

This project was funded by Southwestern Bell Telephone and the Permian Basin Private Industry Council.

This survey project was undertaken to explore the issues that relate to business retention and expansion in the Midland area. These issues are of immediate concern to Midland because existing businesses will continue to be the foundation of the Midland economy for years to come.

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MIDLAND BUSINESS RETENTION AND EXPANSION SURVEY

New business attraction is the economic development activity that usually generates the most publicity. However, the cornerstone of any economic development program is the retention and expansion of existing businesses in the community. Business retention and expansion are important for two reasons. First, existing businesses form the foundation of the local economy. The welfare of existing businesses will effect the entire community. Secondly, the success of existing businesses will be a factor in the decision of any industry considering Midland as a location. With these factors in mind, Southwestern Bell Telephone, the Permian Basin Private Industry Council, and the Business and Economic Development Center at Midland College have surveyed several firms operating in Midland in order to learn more about the factors that influence a firm's decision of whether or not to locate or expand in the Midland area. Thus, without a retention and expansion strategy, an industrial attraction is futile.

THE SURVEY

The survey was mailed to approximately 200 Midland manufacturing and oil-related businesses. All of these businesses are members of the Midland Chamber of Commerce. This fact suggests a bias against newer firms which might not yet be members of the chamber or have joined since the publication of the mailing list. Of these firms, 70 responded yielding a response rate of approximately 35%.

The survey contains questions pertaining to the following topics:

A. COMPANY DESCRIPTION AND HISTORY
B. LOCAL ECONOMIC FACTORS
C. EMPLOYMENT AND LABOR
D. SUPPLIERS
E. CUSTOMERS AND COMPETITORS
F. PHYSICAL FACILITIES
G. TRENDS AND OUTLOOKS

The questions in this survey were answered by two different methods: multiple choice and open-ended. Multiple choice questions are those in which the respondent must choose from a list of responses, whereas open-ended questions are those in which he must provide his own answer. In the results included in the appendices of this report, an open-ended response is denoted by a '#'. Greater weight should be placed on open-ended responses since they are generally more thoughtful answers than multiple choice responses. Response rates vary greatly by question. In some cases this is due to the sensitivity of the question, while in others the number of no responses is due to a lack of applicability to the situation of certain businesses. The data has been presented in the form of totals and histograms. The presentation of results in the form of percentages has been purposely avoided to discourage percentage comparisons since the varying of response rates makes such comparisons of dubious value.

SECTION A---COMPANY DESCRIPTION AND HISTORY

This section was designed to obtain certain background information on each respondent. The results were very consistent with the target groups of this survey which were manufacturers and oil/gas producers. Of the 70 respondents, 19 were manufacturers while 36 were oil/gas producers. Overwhelmingly, the firms operate only 1 location in the Midland/Odessa Metropolitan area. The most striking result of this section is the age distribution of the respondents. There are a number of reasons why this distribution should be skewed towards older firms, one of which is the requirement that the respondents be members of the Midland Chamber of Commerce. Yet this requirement is insufficient to explain the fact that 46 of the 70 businesses are in the 11-50 year old age group. This information illustrates the difficulty that Midland has encountered in creating new businesses in the manufacturing and mining sector of its economy over the last decade. Perhaps many firms that did start-up during this period were unable to survive the downturn in the oil and gas economy. This downturn may have scarred the Midland economy for many years to come by wiping out a whole generation of new

enterprises. Since more mature businesses are less able to adapt to new technologies and innovations, Midland may lag behind other areas of the country in the number of firms that use or produce high-technology items. Another item that was revealed in this portion of the survey is that only 11 of 70 firms are publicly held corporations. This could mean that the lifespan of many of Midland's manufacturing and mining firms might be tied to the lifespan of the owner. This possibility will further exacerbate the situation caused by the low rate of new business start-ups.

SECTION B--LOCAL ECONOMIC FACTORS

This section served to determine the views and familiarity of Midland's business community with certain factors influencing business in Midland such as economic development efforts, capital availability, utilities, taxes, regulations, and infrastructure. The first question of this section refers to the familiarity of the respondents with certain economic development programs. The respondents were asked to rate each development initiative based on their familiarity with it. The scale was from 1-3 with 1 representing not familiar and 3 representing very familiar. Mean (average) scores were tabulated in order to rank the list of initiatives as to their familiarity. The following is the order of familiarity with along with the mean scores of each economic development program:

SBA FINANCING	1.71
INDUSTRIAL REVENUE BONDS	1.55
EXPORT ASSISTANCE CENTER	1.33
VENTURE CAPITAL COMMITTEES	1.31
URBAN DEV. ACTION GRANTS	1.29
CITY/COUNTY LOAN FUNDS	1.23
MIDLAND ECONOMIC DEVELOPMENT REVOLVING LOAN FUND	1.19

It is not surprising that SBA financing placed the highest, but what is most surprising and very disappointing is the low scoring of all the programs. Not one program averaged 2.00, a score that would correspond to "somewhat familiar". Only one firm claimed to be "very familiar" with MEDCO financing, Urban Development Action Grants, and City/County Loan funds. The respondents rated local economic development efforts as "fair" on average.

The next series of questions requires the businesses to rate levels of satisfaction with certain aspects of the community regarding remaining, expanding, or relocating in the Midland/Odessa area. These factors were rated on a scale of 1-5 with 1 representing very unsatisfied and 5 representing very satisfied. Below are listed the factors in rank order with their mean ratings:

QUALITY OF LIFE	4.42
ELECTRIC UTILITIES	3.97
GAS UTILITIES	3.95
POLICE PROTECTION	3.87
WASTE DISPOSAL	3.75
MEDICAL SERVICES	3.73
LAND AVAILABILITY	3.73
EDUCATIONAL RESOURCES	3.67
SEWERS	3.67
LABOR COST	3.64
TRANSPORTATION/ACCESS	3.63
ROADS	3.59
WATER SERVICE	3.48
LAND COST	3.44
PROFIT POTENTIAL OF AREA	3.43
LABOR SUPPLY	3.35
LAND ZONING	3.31
AVAILABILITY OF RAW MATERIALS	3.31
LOCAL GOVERNMENT COOPERATION	3.28
REGULATORY PRACTICES	3.27
GOVERNMENT PROGRAMS	3.19
PERMIT PROCESSES	3.14
DRAINAGE	2.87
AVAILABILITY OF CAPITAL	2.71

The good news is that the Midland business community is generally satisfied in almost all of these areas. All factors with the exception of drainage and the availability of capital have mean scores that exceed 3.00 (a score which represents "neither satisfied nor unsatisfied" or indifference). The bad news is Midland businessmen seem less satisfied with those factors that relate to government's role in industry. While they seem very satisfied with the local government's provision of utilities and education as well as the maintenance of infrastructure (except drainage), they seem relatively dissatisfied with the more direct roles that local government plays in such areas as permit processes,

government assistance and cooperation, zoning, and regulatory practices.

The next inquiry pertains to the experiences of the respondents in dealing with the city council and the planning/zoning board. In both cases, 51 of the 70 respondents have had no dealing with these bodies. The other 19 were asked to rate their experience with these bodies on the same scale that was used to rate factors above. The city council scored 3.07 and the planning/zoning board scored 2.38. While both of these scores are lackluster, it should be pointed out that they are possibly biased. Most businesses would probably not have dealings with these bodies unless some otherwise unsolvable problem existed in advance.

The businesses were also queried as to their experiences with the educational system. The following figures are the number of firms out of 70 that have obtained employees from the following educational entities and their ratings of satisfaction:

VOCATIONAL HIGH SCHOOL	16	3.500
COUNTY(CITY) JOBS DEVELOPMENT PROGRAM	17	3.400
COMMUNITY COLLEGE	28	3.318
LOCAL HIGH SCHOOL	35	3.312

All of these institutions rated respectably well which may well explain the high ranking of educational resources as a factor in a business decision whether to stay, expand, or relocate in Midland.

The respondents were also asked about their impressions about the scope of post-secondary program offerings in the area. First, they were asked "Do you feel that there are enough advanced degree programs being offered?" There were 21 answering "no" with 40 answering "yes" and 9 not offering any answer. This question was followed by the open-ended question, "If not, what programs would you like to see be offered?" 5 firms of the 15 responding expressed some variant of a desire for a four year university, while 7 wished for more technical or engineering programs. Other responses to this question received less support so they are only enumerated in the appendix. It deserves mentioning again that these open-ended answers merit more weight since the respondent was not prompted by a list of multiple choice responses. When asked whether or not they felt the selection of degree programs in this area had an effect on companies choosing to locate in this area, 25 said "no", 37 said "yes", and the remaining were not responsive. In order to properly interpret this question, one must consider its relationship to the first question about whether or not there are enough advanced degrees. More precisely, one should consider whether the people dissatisfied with the scope of the program offerings in the area feel that the scope has an effect on companies locating here or not, and the same should be asked about those who were satisfied with the scope. A simple statistical procedure to estimate this relationship is correlation. The correlation between responses on satisfaction with the scope of programs and the belief in an effect on companies that locate here is .111. Since correlations are always between -1 and 1, with 1 being perfect correlation, -1 being perfect negative correlation, and 0 being no correlation, we can see that there is little correlation between these two questions. Thus, some who were dissatisfied with the scope of programs felt that the scope of programs had no effect on the companies that locate here, and many of those who were satisfied felt that the scope of program offerings did affect companies locating here. The final question of this section is "Do you feel that there are appropriate supplemental education and training programs available in the community to meet these changing and future economic needs?" Of the firms, 20 said "no", 39 said "yes", and 11 did not answer. The answers to this question are highly correlated with those of the question about advanced degrees (.611). However, it is not correlated with the question about the effect of advanced degree programs (.044).

SECTION C--EMPLOYMENT AND LABOR

This section was designed to explore labor force issues affecting business retention and expansion. The first set of questions measures the distributions of labor force size for today, five years ago, and five years from now. For each point in time, the respondents were asked to choose the size of their labor force from the following choices:

1-5	6-10	11-20	21-50
51-100	101 -200	301-500	501 +

These distributions are found in the appendix. The distributions are certainly of interest, but what is **more** interesting is how these distributions changed from **over** time. One should want to know how many firms have fewer employees now than five years ago and how many predict a larger or smaller workforce in the future.

To facilitate answering these questions, each increment of employees has been assigned a number between 1 and 9 with 1 representing 1-5 employees and 9 representing 501+ employees. To measure a companies growth or decline from one period to another, the score from the earlier period will be subtracted from that of the later period. Thus, a positive score would indicate growth and a negative score would indicate decline. For example, suppose that a hypothetical company had a labor force of 201-300 five years ago and a labor force of 21-50 now. Its score then would be 4-7=-3. The score of -3 indicates that the company declined three categories. A score of 0 would indicate that it did not change categories. Below is the distribution of scores for the change from 5 years ago to today:

(Each * represents 2 observations)

SCORE	NUMBER	
-5	1	*
-4	0	
-3	3	**
-2	5	***
-1	8	****
0	37	********************
1	9	*****
2	0	
3	1	*
NO SCORE	6	

From the distribution it can be seen that 17 firms have moved to lower categories over the past 5 years, while only 10 were able to increase their labor force enough to move into higher categories. The drawback of this analysis is that a change from category 9 to category 7 requires a larger **absolute** change in employment than does a change from category 3 to category 1. However, the move from 3 to 1 is a much larger **proportional** change than from 9 to 7. Thus, a score of -2 may mean totally different absolute changes and totally different proportional changes when compared to another score of -2. The graphic below diplays the scores based on the projected labor force 5 years from now minus today's labor force:

(Each * represents 2 observations)

SCORE	NUMBER	
-1	1	*
0	48	************************
1	11	******
2	2	*
3	1	*
NO SCORE	7	

It is encouraging that only 1 firm is projecting decline over the next five years while 13 are anticipating growth. The next graphic illustrates the comparison of the labor force 5 years ago with to the 5 year projections:

(Each * represents 2 observations)

SCORE	NUMBER	
-5	1	*
-4	0	
-3	2	*
-2	2	*
-1	9	*****
0	32	****************
1	8	****
2	6	***
3	1	*
NO SCORE	9	

This graphic illustrates that 14 firms are not anticipating that in 5 years their labor force will even be as large as it was 5 years ago.

The next two questions concern the use of part-time employees and the number of shifts that the company operates. Only 7 of the firms have part-time employees that compose 25% of their labor force. This statistic would be more interesting if we had a comparable figure for 5 years ago, because the conventional wisdom is that Midland companies have become more dependent on part-time labor since the recession began. The survey also shows that only 10 of the firms operate more than one shift. Again it would be beneficial to compare this to an earlier figure because this could be a symptom of the idle productive capacity created by the recession.

The series of questions that follows required the respondents to identify the skill/education requirements of its workforce. The results for this

series of questions are quite lengthy are consequently included only in the appendix. In an attempt to summarize these results, the following table includes the number of respondents in which 10% or more of their workforce is composed of workers who meet each criteria:

JOURNEYMAN LEVEL	23
APPRENTICE LEVEL	23
NO TECHNICAL TRAINING	22
LESS THAN YEAR OF TECH. TRAINING	26
OVER YEAR OF TECHNICAL TRAINING	35
REQUIRE SPECIAL TRAINING	49
REQUIRE COLLEGE DEGREE	41
REQUIRE POST-GRADUATE DEGREE	21

The value of education in providing for the needs of business in Midland is obvious from these numbers. Some 35 firms have large percentages of their labor force occupied with individuals with more than a year of technical training, while only 22 firms have significant numbers of non-trained personnel. Only 11 firms claimed to have workforces completely absent of special training.

When asked about how workers were trained, 53 of the 70 firms stated "on-the-job," with the only other significant answer being "university" (13). This heavy reliance on on-the-job training presents a new challenge to vocational education delivery systems. These systems must find new ways to teach job-specific skills to workers already in the workforce who cannot take time off for training. The survey also shows that 44 firms obtained new employees through word of mouth and that relatively few use the Texas Employment Commission or private employment services. Ten firms did advertise job openings in the newspaper. Furthermore, 44 firms claimed that at least 75% of their employees were residents of Midland County.

SECTION D--SUPPLIERS

This potion of the survey concentrates on identifying very general categories of commodities that are used in the production of the respondent's output and the sources of these commodities. The complete summary of this section is found in the appendix. Below are the commodity categories from which the respondents were able to choose along with the number who listed it as a major component:

CHEMICALS	21
PAPER	21
ELECTRIC/ELECTRONIC EQUIPMENT	21
PETROLEUM	19
INSTRUMENTS	18
PLASTICS	14
FABRICATED METALS	14
STONE/CLAY/GLASS/CONCRETE	13
PRIMARY METALS	13
WOOD	6
RAW FOOD	4
TEXTILES	3

An interesting result of this section was the near complete reliance of the respondents on suppliers in the Midland/Odessa Area. This result is at odds with the Undersupply Study published by the Business and Economic Development Center at Midland College. The Undersupply Study shows that millions of dollars leave the local economy every year as businesses purchase input commodities outside the 17 counties of the Permian Basin. The reason for the discrepancy between these surveys is that the Undersupply Study surveyed a broader spectrum of businesses including wholesale suppliers who resale products manufactured outside the Permian Basin. However, the Business Retention and Expansion Survey excludes many of these wholesalers and factory representatives. Thus, many of the respondents to this survey are purchasing commodities manufactured outside the area from local suppliers.

This section also identifies the modes of transportation used to procure these commodities. Truck transportation is the dominant mode for all commodities. For a few commodities, air and mail transport are utilized, but what is completely absent for all commodities is rail freight. Given that Midland has excellent facilities for rail freight, it is curious that all 70 respondents have avoided its use.

The respondents then were asked to rate the effect of certain supply factors on the profitability of their business. The factors were rated on a scale of 1 to 5 with 1 representing minimal effect and 5 representing great effect:

FLUCTUATIONS IN THE PRICE OF SUPPLIES	3.23
UNRELIABLE SUPPLIERS	3.07
MATERIALS SHORTAGES	2.86
SUPPLY TRANSPORT PROBLEMS	2.84

SECTION E--CUSTOMERS

This section provides information about the customers of the respondents. The results show that most of these firms (42) have a majority of their customers located in the state of Texas with very few having primarily foreign customers. Those that do have foreign customers are evenly distributed as to location of their primary foreign market among Latin America, Canada, and Western Europe. The survey shows that 30 firms used truck for transporting goods to customers, which again shows the neglect of the rail system as it was not utilized by any firm.

The survey reveals that the respondents have a fairly diversified customer base. Only 16 firms were more than "quite dependent" on their top three customers while 26 are "a little dependent" or less on their top three accounts. However, bad news exists in the information that 22 firms are at least "quite likely" to expand their markets in the next year while 25 are "very unlikely" or "somewhat unlikely" to do the same.

This section shows that most of the respondents have yet to develop markets in international trade or in the public sector. Of the respondents, 30 have not sold any of their output to anything but the domestic private sector. However, many firms are simply not interested in international trade, evidenced by the 41 firms who claim to have no interest in exporting.

SECTION F-- PHYSICAL FACILITIES

This section explores the effects of a businesses present facilities and its future needs on its decision to remain or expand in the Midland area. The first set of questions deal with the ownership of these production facilities. The results show a fairly low rate of ownership of these facilities by the respondent as most lease their locations. Further analysis was done to determine whether the types of firms surveyed had any effect on the ownership rate. One might expect for instance that manufacturing firms would tend to own their locations since their equipment and facilities are more specialized. However, it was found interestingly enough that manufacturing firms were more likely to lease their facilities. Of the 19 manufacturing firms in the survey leased, 13 their facilities compared to only 18 of 36 oil and gas firms. Regression analysis was used to determine whether a firms industry, age, or organizational structure had any major effect on ownership rates. Only organizational structure had a remotely significant effect as corporations were marginally more likely to be owners rather than leasers. A second striking result was that 26 of 39 leasers had less than 2 years left on their current lease. Given the slack in the Midland commercial property market, one would expect businesses to have the leverage to lock into long-term leases at the present low rates. However, it is unknown how many these firms were already committed to 6 or 7 year leases before the commercial real estate market reached bottom and are only now able to renegotiate. Another possible explanation for this result is that firms are not satisfied with their present facilities and are waiting for the economy to improve in order to expand or relocate. However, other results in this section fail to suggest any wide spread dissatisfaction with present facilities. The survey also shows that the size of facilities and amount of real estate used by the respondents is fairly small. Of the 26 firms that answered the question about property size, 17 report sizes 5 acres or smaller, and 44 of 56 firms report buildings of 25,000 square feet or smaller. These firms show a tremendous amount of present satisfaction with their present facilities as 62 of them claim that their present amount of space is sufficient for their needs. Of the 70 respondents, 51 say that in the event of expansion they were at least "somewhat likely" to retain their present location while 17 were at least "somewhat unlikely" to stay put. This fact shows that it is likely that commercial property in Midland is presently severely underutilized. While 33 firms claim to have the best machinery available, only 3 claim to use antiquated equipment. Waste disposal is generally not a problem for these firms. The firms are fairly evenly divided in regard to expansion over the next two years. Some 28 respondents are more than "somewhat unlikely" to expand while 30 are "somewhat likely" or better to expand. Of those that are "very likely to expand",

more than 1/3 say the timing of the expansion will be determined by oil/gas price stabilization. Of the 12 firms planning a move, 4 are moving due to changing market conditions while other responses were scattered among a variety of issues. Encouragingly, 19 of 25 respondents say that they would consider a site in Midland if they were to move. Eleven of 22 respondents say that increased oil prices are requisite for any decision to expand.

The next series of questions concerns possible needs for improvement in facilities and technology as well as new product development. It is this section as much as any other that demonstrates the long-lasting effects of the oil and gas recession. Firms that had expanded through leverage during the previous boom fared very poorly during the recession which led to bankruptcy and the seizure of collateral in many cases. It appears from the survey data that the resulting trend in Midland is to avoid the credit market altogether. When asked how they would finance expansion or modernization, 45 firms responded with some sort of internal financing while another 12 responded short- term bank financing. Only 12 firms would consider long-term financing. Of the 28 firms considering new products, only 4 would consider long-term financing while 19 would depend on internally generated funds. This avoidance of credit markets will lead to much slower growth for Midland's future. However, the no-credit strategy will reduce the risk to the area from highly leveraged firms. Yet it must be pointed out complete avoidance of credit is not without its risks. Cash flow is a highly volatile source of funds, and a sudden fall in cash could cripple an expanding firm without credit.

SECTION G--TRENDS AND OUTLOOKS

This section looks at the trends of the respondents. From survey data, it can be seen that 21 firms have declined over the last 5 years while 10 have had no growth and 19 have been "up and down." Only 16 have experienced steady growth over the period. Some 48 firms say that cash flow has been at least "somewhat problematic". Since so many firms claimed earlier that only internal funds such as cash flow would be used for expansion, this creates a pessimistic picture for business expansion in Midland. In spite of the antipathy for the credit market, 39 firms claim that they have no problem borrowing the money that they need.

The next question asks respondents to rate the following factors as to their effect on the financial condition of the company on a scale of 1 to 5 with 1 representing quite unimportant and 5 representing very important. Below are the ratings in order:

LABOR COSTS	3.82
WORKMAN'S COMP	3.68
MATERIALS COST	3.65
UNEMPLOYMENT INSURANCE	3.51
SELLING COSTS	3.48
STATE TAXES	3.48
LOCAL PROPERTY TAXES	3.47
INTEREST RATES	3.46
ENERGY COSTS	3.44
TRANSPORTATION COSTS	3.17
LOCAL ENERGY TAX	3.09

The interesting result of this question is the dissatisfaction with labor costs. Labor costs, workman's comp, and unemployment insurance are all in the top 4 factors. Midland has touted itself as an ideal development site due to its low wages, and wages are lower here than in many places. However, many employers are concerned with labor costs, workmen's comp, and unemployment insurance. The problem lies in the productivity of the workers. The workers may not have adequate training to perform well in the post-boom economy. Local efforts to increase the productivity of the workforce should be encouraged. The state legislature will have to tackle the problems of workman's compensation and unemployment insurance.

The next question uses the same scale to measure the importance of factors on the current operations of the respondents. The following are those results:

DOMESTIC COMPETITION	3.48
SATURATED OR CHANGING MARKETS	3.43
LABOR PRODUCTIVITY	3.08
LABOR AVAILABILITY	2.75
FOREIGN IMPORTS	2.72
OUT-OF-DATE MACHINERY	2.12
TRANSPORTATION PROBLEMS	1.98
EXPORT MARKETS	1.75

The final series of questions deals with the predictions of the respondents for the next 5 years. Fortunately, only 13 are not projecting growth. Here are the ratings of how likely firms are going to be involved in the following activities (1 represents very unlikely and 5 represents very likely):

CONTINUED GROWTH IN CURRENT MARKETS	3.76
EXPANSION OF DOMESTIC MARKETS	3.16
JOINT VENTURES WITH OTHER FIRMS	2.87
ACQUISITION OF OTHER COMPANIES	2.56
MERGER	2.23
EXPANSION OF (INTO) FOREIGN MARKETS	1.88
RELOCATION TO ANOTHER REGION	1.46

CONCLUSIONS

This survey could prove invaluable in developing a strategy for business retention and expansion. The results seem to lead to the conclusion that Midland has a smaller problem with retention than with expansion. Most firms seem to predict Midland as the site of their operations for the indefinite future, yet they seem skittish at best about any prospects for expansion.

SECTION A

A.1 WHAT KIND OF BUSINESS ARE YOU IN?
(Each * represents 2 obs.)

MANUFACTURING	19	**********
WHOLESALE/DISTRIBUTION	4	**
RETAIL	3	**
SERVICES	8	****
OIL\GAS PRODUCTION	38	*******************

A.2 IF YOU MANUFACTURE OR DISTRIBUTE, IN GENERAL WHAT IS YOUR PRODUCTION?

FOOD	2	**
PRINT	5	*****
PETRO/RUB/PLASTIC	9	*********
OIL/GAS SERVICE & SUPPLY	6	******
STONE/CLAY/GLASS/CONCR.	5	*****
METALS	1	*
ELECTRIC\ELCTR. EQUIP.	1	*
INSTRUMENTS	2	**
OTHER	2	**
NO ANSWER	37	

A.3 WHERE ARE YOUR CORPORATE HEADQUARTERS?
(Each * represents 2 obs.)

MIDLAND	58	*****************************
HOUSTON	3	**
DALLAS	1	*
LUBBOCK	1	*
FORT WORTH	1	*
LOS ANGELES	2	*
NEW YORK	1	*
HARRISON, NY	1	*
SINGAPORE	1	*
NO ANSWER	1	

A.4 HOW MANY LOCATIONS DOES YOUR COMPANY HAVE IN THE MIDLAND/ODESSA METROPOLITAN AREA?
(Each * represents 2 obs.)

ONE	56	****************************
TWO	8	****
3-5	3	**
6-10	2	*
11+	1	*

A.5 HOW MANY YEARS HAS YOUR FIRM BEEN IN BUSINESS?
(Each * represents 2 obs.)

LESS THAN 1 YEAR	0	
1-5	4	**
6-10	11	******
11-50	48	************************
50+	9	*****

A.6 HOW IS YOUR FIRM ORGANIZED?
(Each * represents 2 obs.)

CORPORATION (PUBLIC)	11	******
CORPORATION (PRIVATE)	43	**********************
PARTNERSHIP	2	*
SOLE PROPRIETORSHIP	11	******
OTHER	2	*
NO RESPONSE	1	

SECTION B

B.1 HOW FAMILIAR ARE YOU WITH THE FOLLOWING ECONOMIC DEVELOPMENT PROGRAMS?

KEY
1 = NOT FAMILIAR
2 = SOMEWHAT FAMILAIR
3 = VERY FAMILIAR

INDUSTRIAL REVENUE BONDS

1	37	**********
2	26	*******
3	6	**
NO ANSWER	1	

MEAN = 1.5507

SBA FINANCING

1	27	*******
2	35	**********
3	7	**
NO ANSWER	1	

MEAN = 1.7101

MEDCO FINANCING
Each * represents 2 obs.

1	55	**********
2	11	**
3	1	*
NO ANSWER	3	

MEAN = 1.1940

URBAN DEVELOPMENT ACTION GRANTS
Each * represents 2 obs.

1	49	**********
2	18	***
3	1	*
NO ANSWER	2	

MEAN = 1.2941

COUNTY/CITY LOAN FUNDS
Each * represents 2 obs.

1	54	**********
2	14	**
3	1	*
NO ANSWER	1	

MEAN = 1.2319

VENTURE CAPITAL COMMITTEE
Each * represents 2 obs.

1	50	**********
2	15	***
3	3	*
NO ANSWER	2	

MEAN = 1.3088

EXPORT ASSISTANCE CENTER
Each * represents 2 obs.

1	48	**********
2	16	***
3	3	*
NO ANSWER	3	

MEAN = 1.3284

B.2 HOW WOULD YOU RATE LOCAL ECONOMIC DEVELOPMENT EFFORTS?

NO OPINION	12	**********
POOR	15	**********
FAIR	27	**********
GOOD	15	**********
EXCELLENT	1	*

B.3 HOW SATISFIED ARE YOU WITH THE FOLLOWING WHEN CONSIDERING REMAINING, EXPANDING, OR RELOCATING IN THE MIDLAND/ODESSA AREA?

KEY
1 - VERY UNSATISFIED
2 - SOMEWHAT UNSATISFIED
3 - NEITHER SATISFIED OR UNSATISFIED
4 - SOMEWHAT SATISFIED
5 - VERY SATISFIED

LABOR COST

1	3	**
2	7	**
3	15	**********
4	27	**********
5	14	**********
NO ANSWER	4	

MEAN = 3.8364

LABOR SUPPLY

1	6	**
2	10	**********
3	15	**********
4	23	**********
5	11	**********
NO ANSWER	5	

MEAN = 3.3536

LAND COST

1	5	**
2	4	**
3	22	**********
4	19	**********
5	11	**********
NO ANSWER	9	

MEAN = 3.4426

LAND AVAILABILITY

1	2	*
2	3	*
3	22	**********
4	14	**********
5	18	**********
NO ANSWER	11	

MEAN = 3.7288

LAND ZONING

1	6	******
2	5	*****
3	25	*************************
4	14	**************
5	11	**********
NO ANSWER	9	

MEAN = 3.3115

PERMIT PROCESSES

1	5	*****
2	8	********
3	27	***************************
4	10	**********
5	8	********
NO ANSWER	12	

MEAN = 3.1379

TRANSPORTATION/ACCESS

1	4	****
2	5	*****
3	15	**************
4	25	*************************
5	14	**************
NO ANSWER	7	

MEAN = 3.6349

AVAILABILITY OF RAW MATERIALS

1	5	*****
2	2	**
3	31	*******************************
4	12	**********
5	9	*********
NO ANSWER	11	

MEAN = 3.3051

GOVERNMENT ASSISTANCE PROGRAMS

1	4	****
2	5	*****
3	34	**********************************
4	4	****
5	10	**********
NO ANSWER	13	

MEAN = 3.1930

QUALITY OF LIFE

1	0	
2	3	***
3	5	*****
4	20	********************
5	39	**
NO ANSWER	3	

MEAN = 4.4179

ROADS

1	5	*****
2	9	*********
3	10	**********
4	26	**************************
5	16	****************
NO ANSWER	4	

MEAN = 3.5909

SEWERS

1	4	****
2	4	****
3	17	*****************
4	26	**************************
5	15	***************
NO ANSWER	4	

MEAN = 3.6667

WATER SERVICE

1	2	**
2	11	**********
3	15	***************
4	26	**************************
5	10	**********
NO ANSWER	6	

MEAN = 3.4844

DRAINAGE

1	10	**********
2	18	******************
3	18	******************
4	10	**********
5	10	**********
NO ANSWER	4	

MEAN = 2.8788

ELECTRIC UTILITIES

1	0	
2	6	******
3	11	**********
4	29	*****************************
5	21	*********************
NO ANSWER	3	

MEAN = 3.9701

GAS UTILITIES

1	1	*
2	5	*****
3	12	**********
4	27	***************************
5	22	**********************
NO ANSWER	3	

MEAN = 3.9552

POLICE PROTECTION

1	2	**
2	8	********
3	7	*******
4	30	******************************
5	20	********************
NO ANSWER	3	

MEAN = 3.8657

WASTE DISPOSAL

1	0	
2	7	*******
3	17	*****************
4	29	*****************************
5	14	**************
NO ANSWER	3	

MEAN = 3.7483

MEDICAL SERVICES

1	2	**
2	7	*******
3	13	************
4	30	******************************
5	15	***************
NO ANSWER	3	

MEAN = 3.7313

REGULATORY PRACTICES

1	5	*****
2	6	******
3	24	************************
4	16	****************
5	8	********
NO ANSWER	11	

MEAN = 3.2712

EDUCATIONAL RESOURCES

1	3	***
2	8	********
3	11	***********
4	31	********************************
5	14	**************
NO ANSWER	3	

MEAN = 3.8718

PROFIT POTENTIAL OF AREA

1	7	*******
2	7	*******
3	14	**************
4	25	*************************
5	12	************
NO ANSWER	5	

MEAN = 3.4308

LOCAL GOVERNMENT COOPERATION

1	5	*****
2	7	*******
3	27	***************************
4	17	*****************
5	9	*********
NO ANSWER	5	

MEAN = 3.2769

AVAILABILITY OF CAPITAL

1	13	*************
2	14	**************
3	19	*******************
4	12	************
5	5	*****
NO ANSWER	7	

MEAN = 2.7143

B.4 HAVE YOU EVER HAD AN APPLICATION PENDING BEFORE EITHER OF THE FOLLOWING BODIES AND HOW SATISFIED WERE YOU WITH THE RESULTS?

KEY
1 - VERY UNSATISFIED
2 - SOMEWHAT UNSATISFIED
3 - NEITHER SATISFIED OR UNSATISFIED
4 - SOMEWHAT SATISFIED
5 - VERY SATISFIED
Each * represents 2 obs.

CITY (COUNTY) COUNCIL

NO	51	*************************
YES		
1	2	**
2	3	***
3	3	***
4	4	****
5	2	**
NO ANSWER	5	

MEAN = 3.0714

PLANNING/ZONING BOARD

NO	51	*************************
YES		
1	5	*****
2	2	**
3	2	**
4	4	****
5	0	
NO ANSWER	6	

MEAN = 2.3846

B.5 PLEASE INDICATE IF YOU HAVE OBTAINED EMPLOYEES FROM THE FOLLOWING INSTITUTIONS AND HOW SATISFIED YOU WERE?

KEY
1 - VERY UNSATISFIED
2 - SOMEWHAT UNSATISFIED
3 - NEITHER SATISFIED OR UNSATISFIED
4 - SOMEWHAT SATISFIED
5 - VERY SATISFIED

LOCAL HIGH SCHOOL

NO	35	**********************************
YES		
1	5	*****
2	2	**
3	8	********
4	12	************
5	5	*****
NO ANSWER	3	

MEAN = 3.3125

VOCATIONAL HIGH SCHOOL
Each * represents 2 obs.

NO	54	***************************
YES		
1	1	*
2	1	*
3	1	*
4	6	***
5	1	*
NO ANSWER	6	

MEAN = 3.5000

COMMUNITY COLLEGE

NO	42	***
YES		
1	2	**
2	4	****
3	6	******
4	5	*****
5	5	*****
NO ANSWER	6	

MEAN = 3.3182

COUNTY (CITY) JOBS DEVELOPMENT PROGRAM
Each * represents 2 obs.

NO	53	***************************
YES		
1	0	
2	2	*
3	3	**
4	4	**
5	1	*
NO ANSWER	7	

MEAN = 3.4000

B.6 DO YOU FEEL THAT THERE ARE ENOUGH ADVANCED DEGREES OFFERED IN THIS AREA?

NO	21	(34%)	**********
YES	40	(66%)	********************
NO ANSWER	9		

B.7 IF NOT, WHAT TYPES OF PROGRAMS WOULD YOU LIKE TO SEE BE OFFERED? --NOTE OPEN-ENDED RESPONSES--

FOUR YEAR SCHOOL	5	*****
MORE TECHNICAL OR ENGINEERING PROGRAMS	7	*******
JOURNALISM	1	*
FINANCIAL PLANNING	1	*
MORE DOCTORAL RESEARCH	1	*
NO ANSWER	55	

B.8 DO YOU FEEL THAT THE SELECTION OF ADVANCED DEGREE PROGRAMS CURRENTLY BEING OFFERED HAS AN EFFECT ON COMPANIES CHOOSING TO LOCATE IN THIS AREA?

NO	25	(40%)	**********
YES	37	(60%)	**********
NO ANSWER	8		

B.9 DO YOU FEEL THAT THERE ARE APPROPRIATE SUPPLEMENTAL EDUCATION AND TRAINING PROGRAMS AVAILABLE IN THE COMMUNITY TO MEET THESE CHANGING AND FUTURE ECONOMIC NEEDS?

NO	20	(34%)	**********
YES	39	(66%)	**********

SECTION C

PLEASE ESTIMATE HOW MANY EMPLOYEES YOUR COMPANY:

C.1 HAS TODAY

1-5	23	**********
6-10	18	********
11-20	1	*
21-50	11	*****
51-100	5	**
101-200	6	***
201-300	1	*
301-500	1	*
501+	2	**
NO ANSWER	4	

C.2 HAD FIVE YEARS AGO

1-5	20	**********
6-10	12	*****
11-20	1	*
21-50	14	*******
51-100	6	***
101-200	3	**
201-300	3	**
301-500	1	*
500+	4	**
NO ANSWER	6	

C.3 WILL HAVE IN FIVE YEARS

1-5	17	********
6-10	14	*******
11-20	1	*
21-51	15	*******
51-100	4	**
101-200	9	****
201-300	1	*
301-500	2	**
501+	2	**
NO ANSWER	5	

C.4 WHAT PERCENTAGE OF YOUR EMPLOYEES ARE PART TIME WORKERS?

Each * represents 2 obs.

0-25%	59	**********
26-50%	4	**
51-75%	1	*
75%+	2	*
NO ANSWER	4	

C.5 HOW MANY SHIFTS DOES YOUR COMPANY OPERATE?

Each * represents 2 obs.

1	57	**********
2	7	***
3	3	**
NO ANSWER	3	

C.6 WHAT PERCENTAGE OF YOUR WORKFORCE:

ARE JOURNEYMAN LEVEL

NONE	35	**********
LESS THAN 10%	6	**
10-20%	3	*
21-30%	4	*
31-40%	2	*
41-50%	4	*
51%+	4	*
NO ANSWER	12	

ARE APPRENTICE LEVEL

NONE	35	**********
LESS THAN 10%	15	*******
10-20%	3	*
21-30%	3	*
31-40%	0	
41-50%	1	*
51%	1	*
NO ANSWER	12	

REQUIRE OVER A YEAR OF TECHNICAL TRAINING

NONE	24	**********
LESS THAN 10%	10	****
10-20%	7	***
21-30%	3	*
31-40%	4	*
41-50%	0	
51%+	11	****
NO ANSWER	11	

REQUIRE A YEAR OR LESS OF TECHNICAL TRAINING

NONE	31	**********
LESS THAN 10%	18	*******
10-20%	1	*
21-30%	6	**
31-40%	0	
41-50%	1	*
51%	3	*
NO ANSWER	13	

REQUIRE NO TECHNICAL TRAINING

NONE	38	**********
LESS THAN 10%	9	****
10-20%	3	*
21-30%	2	*
31-40%	4	*
41-50%	1	*
51%+	3	*
NO ANSWER	13	

REQUIRE SPECIAL TRAINING

NONE	11	****
LESS THAN 10%	15	*******
10-20%	10	****
21-30%	3	*
31-40%	2	*
41-50%	3	*
51%+	18	********
NO ANSWER	10	

REQUIRE COLLEGE DEGREE

NONE	21	**********
LESS THAN 10%	9	*********
10-20%	5	*****
21-30%	5	*****
31-40%	4	****
41-50%	8	********
51%+	10	**********
NO ANSWER	8	

REQUIRE POST GRADUATE DEGREE

NONE	37	**********
LESS THAN 10%	8	********
10-20%	3	***
21-30%	1	*
31-40%	2	**
41-50%	4	****
51%+	3	***
NO ANSWER	12	

C.7 HOW ARE YOUR WORKERS TRAINED?

Each * represents 2 obs.

ON THE JOB	58	**********
VOCATIONAL SCHOOL	3	**
UNION PROGRAM	0	
TRADE SCHOOL	0	
UNIVERSITY	13	*******
COMPANY SCHOOL #	1	*
CONTINUING PROFESSIONAL ED.#	1	*
OTHER	1	*
NO ANSWER	2	

#- SIGNIFIES OPEN-ENDED RESPONSE
DOES NOT 70 DUE TO MULTIPLE RESPONSES

C.8 HOW DO YOU OBTAIN REPLACEMENT EMPLOYEES?

Each * represents 2 obs.

WORD OF MOUTH	44	**********
STATE EMPLOYMENT SERVICE	6	***
NEWSPAPER	10	*****
SIGN OUT FRONT	0	
UNION HALL	0	
VOCATIONAL SCHOOL	0	
JTPA #	1	*
COLLEGE RECRUITING #	1	*
PRIVATE EMPLOYMENT SERVICE	3	**
OTHER	1	*
NO ANSWER	4	

C.9 WHAT PERCENT OF YOUR WORKFORCE LIVES IN THIS COUNTY (CITY)?

0-25%	12	**********
26-50%	6	******
51-75%	8	********
75%+	44	**********

SECTION D

WHAT ARE THE MAIN COMPONENTS OF YOUR PRODUCTION? WHERE ARE YOUR SOURCES OF MATERIALS? HOW DO YOU MATERIALS USUALLY REACH YOU?

RAW FOOD	4	****
MIDLAND/ODESSA	2	**
TEXTILES	3	***
TEXAS	1	*
TRUCK	1	*
WOOD	6	******
MIDLAND/ODESSA	2	**
TEXAS	1	*
TRUCK	2	**
PAPER	21	**********
MIDLAND/ODESSA	13	**********
TEXAS	1	*
USA	1	*
FOREIGN	1	*
TRUCK	5	*****
MAIL	1	*
CHEMICALS	21	**********
MIDLAND/ODESSA	12	**********
TEXAS	2	**
TRUCK	7	*******
PETROLEUM	19	**********
MIDLAND/ODESSA	10	**********
TEXAS	1	*
TRUCK	6	******
PLASTICS	14	**********
MIDLAND/ODESSA	8	********
TEXAS	1	*
USA	1	*
TRUCK	6	******
STN/CLAY/GLS/CONC.	13	**********
MIDLAND/ODESSA	8	********
TEXAS	2	**
USA	1	*
TRUCK	5	*****
PRIMARY METALS	13	**********
MIDLAND/ODESSA	6	******
TEXAS	3	***
USA	1	*
TRUCK	7	*******
FABRICATED METALS	14	**********
MIDLAND/ODESSA	9	**********
TEXAS	1	*
USA	1	*
TRUCK	7	*******
AIR	2	**
ELECTRIC/ ELECTRONIC EQUIPMENT	21	**********
MIDLAND/ODESSA	13	**********
USA	3	***
TRUCK	5	*****
AIR	2	**
MAIL	2	**
INSTRUMENTS	18	**********
MIDLAND/ODESSA	8	********
USA	5	*****
TRUCK	1	*
AIR	3	***
MAIL	1	*
OTHER	12	**********
MIDLAND/ODESSA	2	**
TEXAS	1	*
USA	5	*****
TRUCK	3	***
AIR	2	**
MAIL	1	*

D.4 ON A FIVE POINT SCALE, WITH 5 REPRESENTING GREAT EFFECT AND 1 REPRESENTING LITTLE EFFECT, HOW MUCH DO THE FOLLOWING AFFECT THE PROFITABILITY OF YOUR BUSINESS?

MATERIALS SHORTAGE

1	24	**********
2	5	*****
3	2	**
4	7	*******
5	18	**********
NO ANSWER	13	

MEAN = 2.8596

SUPPLY TRANSPORT PROBLEMS

1	20	**********
2	5	*****
3	11	**********
4	8	********
5	14	**********
NO ANSWER	12	

MEAN = 2.8448

UNRELIABLE SUPPLIERS

1	16	**********
2	7	*******
3	7	*******
4	11	**********
5	16	**********
NO ANSWER	13	

MEAN = 3.0702

FLUCTUATIONS IN THE PRICE OF SUPPLIES

1	13	**********
2	7	*******
3	11	**********
4	13	**********
5	17	**********
NO ANSWER	9	

MEAN = 3.2295

SECTION E

E.1 WHERE ARE MOST OF YOUR CUSTOMERS LOCATED?

WITHIN COUNTY OR CITY	9	*********
WITHIN MIDLAND/ODESSA AREA	10	**********
WITHIN TEXAS	23	**********
WITHIN REGION OF COUNTRY	4	****
UNITED STATES	12	**********
FOREIGN	3	***
NO ANSWER	9	

E.2 WHERE ARE YOUR PRIMARY FOREIGN MARKETS?

CANADA	4	****
LATIN AMERICA	4	****
WESTERN EUROPE	3	***
OTHER	3	***
NO ANSWER	56	

E.3 HOW DO YOU NORMALLY TRANSPORT FINISHED PRODUCTS?

TRUCK	30	**********
AIR	3	***
SHIP	1	*
MAIL	7	*******
RAIL	0	
OTHER	4	****

E.4 HOW DEPENDENT IS YOUR COMPANY ON ITS TOP THREE CUSTOMERS?

MINIMALLY DEPENDENT	17	**********
A LITTLE DEPENDENT	9	*********
SOMEWHAT DEPENDENT	14	**********
QUITE DEPENDENT	7	*******
VERY DEPENDENT	9	*********
NO ANSWER	14	

E.5 HOW LIKELY ARE YOU TO WIDEN YOUR MARKET NEXT YEAR?

VERY UNLIKELY	16	**********
SOMEWHAT UNLIKELY	9	*********
SOMEWHAT LIKELY	13	**********
QUITE LIKELY	11	**********
VERY LIKELY	11	**********
NO ANSWER	10	

E.6 WHAT PERCENTAGE OF YOUR OUTPUT IS SOLD TO:

FOREIGN BUYERS		
NONE	45	**********
5%	8	********
5-10%	2	**
10-25%	0	
25-50%	1	*
NO ANSWER	14	
FEDERAL GOVERNMENT		
NONE	43	**********
5%	8	********
5-10%	1	*
10-25%	0	
25-50%	2	**
50% +	1	*
NO ANSWER	15	
STATE GOVERNMENT		
NONE	43	**********
5%	11	**********
5-10%	0	
10-25%	0	
25-50%	1	*
NO ANSWER	15	
LOCAL GOVERNMENT		
NONE	45	**********
5%	7	*******
5-10%	4	****
NO ANSWER	14	
PRIME CONTRACTOR WHICH SELLS TO GOVERNMENT		
NONE	42	**********
5%	6	******
5-10%	4	****
10-25%	0	
25-50%	1	*
50% +	2	**
NO ANSWER	15	

E.7 IF YOU ARE NOT EXPORTING, ARE YOU INTERESTED IN DOING SO?

NO	41	**********
YES	18	**********
NO ANSWER	11	

E.8 WHICH ONE OF THE FOLLOWING MOST ACCURATELY DESCRIBES YOUR CUSTOMERS?

CONSUMERS	9	*********
RETAILERS	5	*****
FOOD INDUSTRY	3	***
OIL & GAS PRODUCERS#	11	**********
OIL & GAS PURCHASERS#	2	**
O & G SERVICE/SUPPLY#	2	**
PETROLEUM REFINING	18	**********
STONE/CLAY/GLASS/CONC.	2	**
BUILDING CONTRACTORS#	1	*
ELECTRIC/ELECTRONIC	3	***
MEDICAL PATIENTS	1	*
OTHER	2	**
NO ANSWER	16	
TOTAL	75	

SIGNIFIES OPEN-ENDED ANSWER
TOTALS DO NOT EQUAL 70 DUE TO MULTIPLE RESPONSES

SECTION F

F.1 DO YOU OWN OR LEASE THIS LOCATION?

OWN	33	**********
LEASE	37	**********

F.2 IF YOU LEASE, HOW MANY YEARS ARE LEFT ON CURRENT LEASE?

LESS THAN 1 YEAR	16	*****
1-2	10	****
2-3	5	**
3-5	3	*
5-10	5	**
NO ANSWER	31	

F.3 WHAT IS THE PROPERTY SIZE IN ACRES AT THIS LOCATION?#

1 ACRE	4	2 ACRES	7
3 ACRES	4	5 ACRES	2
7 ACRES	1	12 ACRES	1
15 ACRES	1	25 ACRES	1
30 ACRES	1	40 ACRES	1
200 ACRES	1	925 ACRES	1
7500 ACRES	1		
NO ANSWER	44		

F.4 ABOUT HOW LARGE IS YOUR BUILDING?

LESS THAN 25 TH.	44	**********
25-50 TH.	12	***
51-75 TH.	3	*
76-100 TH.	1	
101-200 TH.	0	
200 TH. +	4	**
NO ANSWER	6	

F.5 IS THE SPACE HERE SUFFICIENT FOR YOUR CURRENT NEEDS?

Each * represents 2 obs.

YES	62	**********
NO	3	*
UNCERTAIN	4	*
NO ANSWER	1	

F.6 IF YOU EXPAND YOUR BUSINESS, HOW LIKELY ARE YOU TO STAY IN THIS LOCATION?

VERY UNLIKELY	11	*****
SOMEWHAT UNLIKELY	6	***
NEITHER LIKELY OR UNLIKELY	2	*
SOMEWHAT LIKELY	11	*****
VERY LIKELY	40	**********

F.7 IS YOUR MACHINERY ADEQUATE?

BEST AVAILABLE	33	**********
COULD BEBETTER	22	*******
ANTIQUATED	3	*
NO ANSWER	8	

F.8 DOES YOUR OPERATION PRODUCE SUBSTANTIAL WASTE?

Each * represents 2 obs.

YES	4	*
NO	60	**********
UNCERTAIN	2	*

MEAN = 1.9697

F.9 HOW IS THE WASTE DISPOSED OF?

HAULED AWAY	28	**********
PROCESSED BY US	2	*
PROCESSED BY OTHERS	4	**
RELEASED TO SEWER	1	*
NO ANSWER	35	

F.10 HOW LIKELY ARE YOU TO EXPAND DURING THE NEXT TWO YEARS?

VERY UNLIKELY	18	*****
SOMEWHAT UNLIKELY	10	****
NEITHER LIKELY OR UNLIKELY	10	****
SOMEWHAT LIKELY	18	*****
VERY LIKELY	12	****
NO ANSWER	2	

F.11 IF YOU CHOSE "VERY LIKELY", WHEN WOULD EXPAND?

WHEN OIL AND GAS PRICES RISE/STABILIZE#	4	**
WITHIN THE YEAR#	3	*
WITHIN SIX MONTHS#	1	
GRADUALLY#	1	
1991#	1	
WHEN SALES INCREASE#	1	
NO ANSWER	59	

F.12 IF YOU CHOSE "VERY LIKELY," WHERE WOULD YOU EXPAND?

WITHIN CITY OR COUNTY	4	**
IN MIDLAND\ODESSA AREA	6	***
WITHIN STATE	3	*
OTHER	3	*
NO ANSWER	54	

F.13 IF YOU ARE PLANNING A MOVE, WHY?

CHANGING MARKETS	4	**
BUILDING OVERCROWDED	1	
WORKMEN'S COMP	1	
CHEAPER RENT#	1	
HIGH PROPERTY TAXES	1	
INCREASED WORKLOAD#	1	

48

AVAILABILITY OF FINANCING#	1	*
NEW BUSINESS	1	*
NO ANSWER	61	

--NOTE-- DOES NOT TOTAL 70 DUE TO MULTIPLE RESPONSES

F.14 WOULD YOU CONSIDER A SITE IN THIS COMMUNITY THAT MEETS YOUR NEEDS?

YES	19	**********
NO	6	******
UNCERTAIN	1	*
NO ANSWER	44	

F.15 WHAT WOULD NEED TO HAPPEN TO CAUSE YOU TO EXPAND?

INCREASED BUSINESS/DEMAND/MARKET	5	*****
INCREASED OIL/GAS PRICES	11	**********
MORE CREDIT	1	*
LABOR COST/WORKMEN'S COMP	1	*
GENERAL ECONOMY IMPROVEMENT	2	*
OTHER	2	**
NO ANSWER	50	

SIGNIFIES OPEN-ENDED ANSWERS

F.16 HOW MUCH MODERNIZATION OR IMPROVEMENT OF YOUR CURRENT BUILDINGS AND EQUIPMENT DO YOU ANTICIPATE IN THE NEXT TWO YEARS?

NONE	20	**********
VERY LITTLE	16	**********
SOME	23	**********
QUITE A LOT	2	**
SUBSTANTIAL	1	*
NO ANSWER	8	

F.17 ARE THERE MORE TECHNOLOGICAL INNOVATIONS THAT WOULD ENABLE YOU TO KEEP PACE OR IMPROVE YOUR COMPETITIVE POSITION OR IMPROVE YOUR FIRM'S EARNINGS IF YOU WERE ALLOWED TO USE THEM?

YES	28	**********
NO	26	**********
UNCERTAIN	7	*******
NO ANSWER	9	

F.18 IF YES, WHY HAVE YOU NOT ADOPTED THEM?

COST	7	*******
UNJUSTIFIED NOW	4	****
CAPITAL CONSTRAINTS	1	*

SIGNIFIES OPEN-ENDED RESPONSE

F.19 WHICH OF THE FOLLOWING MEANS WOULD YOUR COMPANY USE TO FINANCE EXPANSION OR MODERNIZATION OR THE INTRODUCTION OF A NEW TECHNOLOGY?

SHORT-TERM BANK FINANCING	14	**********
LONG-TERM FINANCING	12	**********
GOVERNMENT ASSISTANCE	2	**
VENTURE CAPITAL	8	********
PARENT COMPANY	6	******
CASH FLOW	25	**********
RETAINED EARNINGS	13	**********
NEW OWNER EQUITY	1	*
MERGER/ACQUISITION/OUTSIDE EQUITY	4	****
OTHER	1	*
NO ANSWER	9	

--NOTE-- DOES NOT TOTAL 70 DUE TO MULTIPLE RESPONSES

F19A WHICH OF THE ABOVE WOULD YOU RELY ON MOST HEAVILY?

SHORT-TERM BANK FINANCING	10	**********
LONG-TERM FINANCING	7	*******
GOVERNMENT ASSISTANCE	1	*
VENTURE CAPITAL	7	*******
PARENT COMPANY	6	******
CASH FLOW	22	**********
RETAINED EARNING	12	**********
MERGER/ACQUISITION/OUTSIDE EQUITY	4	****
OTHER	2	**
NO ANSWER	7	

--NOTE-- DOES NOT TOTAL 70 DUE TO MULTIPLE RESPONSES

F.20 DOES YOUR COMPANY HAVE ANY PLANS FOR DEVELOPING NEW PRODUCTS?

YES	21	**********
NO	36	**********
UNCERTAIN	6	******
NO ANSWER	7	

F.21 IF YES, HOW WOULD DEVELOPMENT AND PRODUCTION BE FINANCED?

SHORT-TERM BANK FINANCING	4	****
LONG-TERM FINANCING	4	*****
VENTURE CAPITAL	4	**
PARENT COMPANY	4	***
CASH FLOW	10	**********
RETAINED EARNINGS	5	*****
NEW OWNER EQUITY	1	*
MERGER/ACQUIS./OUTSIDE EQUITY	2	**
OTHER	1	*
NO ANSWER	42	

NOTE-- DOES NOT TOTAL 70 DUE TO MULTIPLE RESPONSES

SECTION G

G.1 IN WHAT RANGE IS YOUR FIRMS GROSS SALES?

LESS THAN $1M	20	••••••••••••••••••••
$1-5M	24	•••••••••••••••••••••••••
$6-10M	4	••••
$11-25M	3	•••
$26-50M	3	•••
$51-100M	2	••
$100M +	6	••••••
NO ANSWER	8	

G.2 WHAT HAS YOUR AVERAGE ANNUAL GROWTH BEEN OVER THE PAST 5 YEARS?

DECLINE	21	•••••••••••••••••••••
NONE	10	••••••••••
UP AND DOWN	19	•••••••••••••••••••
1-5%	3	•••
6-10%	5	•••••
11-20%	3	•••
21-50%	4	••••
51% +	1	•
NO ANSWER	4	

G.3 HOW SERIOUS A PROBLEM IS CASH FLOW IN YOUR BUSINESS?

NO PROBLEM	19	•••••••••••••••••••
SOMEWHAT PROBLEMATIC	23	•••••••••••••••••••••••
QUITE A PROBLEM	9	•••••••••
A SERIOUS PROBLEM	16	••••••••••••••••
NO ANSWER	3	

G.4 IS YOUR BUSINESS SEASONAL?

VERY MUCH	5	•••••
SOMEWHAT	20	••••••••••••••••••••
NOT REALLY	40	••
NO ANSWER	5	

G.5 HOW CAN THE GOVERNMENT HELP MEET YOUR FINANCIAL NEEDS?

SHORT TERM LOANS	2	••
LONG TERM LOANS	4	••••
LOAN GUARANTEES	2	••
LOW INTEREST LOANS	3	•••
OTHER	13	••••••••••••••
NO ANSWER	46	

G.6 DO YOU HAVE ANY TROUBLE BORROWING THE MONEY YOU NEED?

YES	17	••••••••••••••••••
NO	39	•••
NO ANSWER	14	

G.7 HOW IMPORTANT ARE THE FOLLOWING FACTORS TO THE FINANCIAL CONDITION OF YOUR COMPANY?

KEY

1 = QUITE UNIMPORTANT
5 = VERY IMPORTANT

MATERIAL COSTS

1	10	••••••••••••
2	5	•••••
3	10	••••••••••••
4	9	•••••••••
5	28	••••••••••••••••••••••••••••••
NO ANSWER	8	
MEAN	=	3.6452

LABOR COSTS

1	9	•••••••••
2	5	•••••
3	5	•••••
4	12	••••••••••••••
5	31	••••••••••••••••••••••••••••••••••
NO ANSWER	8	
MEAN	=	3.8226

INTEREST RATES

1	11	••••••••••••••
2	7	•••••••
3	9	•••••••••
4	14	••••••••••••••••
5	22	••••••••••••••••••••••••
NO ANSWER	7	
MEAN	=	3.4603

SELLING COSTS

1	12	••••••••••••
2	4	••••
3	8	••••••••
4	15	••••••••••••••••
5	21	••••••••••••••••••••••
NO ANSWER	10	
MEAN	=	3.4833

TRANSPORTATION COSTS

1	11	••••••••••••
2	11	••••••••••••
3	13	••••••••••••••
4	10	••••••••••
5	17	••••••••••••••••••
NO ANSWER	8	
MEAN	=	3.1774

WORKMEN'S COMPENSATION

1	10	••••••••••
2	3	•••
3	9	•••••••••
4	13	••••••••••••••
5	26	••••••••••••••••••••••••••••
NO ANSWER	9	
MEAN	=	3.6885

UNEMPLOYMENT INSURANCE

1	8	••••••••
2	7	•••••••
3	9	•••••••••
4	23	••••••••••••••••••••••••
5	16	••••••••••••••••
NO ANSWER	7	
MEAN	=	3.5079

ENERGY COSTS

1	10	**********
2	9	*********
3	8	********
4	14	**************
5	21	*********************
NO ANSWER	8	
MEAN	=	3.4355

LOCAL PROPERTY TAXES

1	7	*******
2	10	**********
3	11	***********
4	18	******************
5	18	******************
NO ANSWER	6	
MEAN	=	3.4688

LOCAL ENERGY TAX

1	11	***********
2	12	************
3	12	************
4	14	**************
5	13	*************
NO ANSWER	8	
MEAN	=	3.0968

STATE TAXES

1	12	************
2	7	*******
3	6	******
4	10	**********
5	25	*************************
NO ANSWER	10	
MEAN	=	3.4833

G.8 HAVE YOU EVER USED ANY FEDERAL STATE OR LOCAL GRANT OR LOANPROGRAM?

Each * represents 2 obs.

YES	5	***
NO	61	*********************************
NO ANSWER	4	

G.9 WHICH PROGRAM

EDA LOAN GUARANTEE	1	*
SBA LOAN GUARANTEE	4	****
NO ANSWER	65	

G.10 HAVE YOU EVER ATTEMPTED TO USE ONE OF THESE PROGRAM S AND BEEN DENIED?

Each * represents 2 obs.

YES	2	*
NO	58	******************************
NO ANSWER	10	

G.11 HOW IMPORTANT ARE THE FOLLOWING FACTORS TO YOUR CURRENT OPERATION? (1 = UNIMPORTANT, 5 = IMPORTANT)

FOREIGN IMPORTS

1	29	*******************************
2	4	****
3	3	***
4	3	***
5	21	*********************
NO ANSWER	10	
MEAN	=	2.7167

DOMESTIC COMPETITION

1	10	**********
2	6	******
3	13	*************
4	10	**********
5	23	************************
NO ANSWER	8	
MEAN	=	3.4839

SATURATED OR CHANGING MARKETS

1	14	**************
2	1	*
3	11	***********
4	13	************
5	21	*********************
NO ANSWER	10	
MEAN	=	3.4333

OUT-OF-DATE MACHINERY

1	25	*************************
2	10	**********
3	13	*************
4	8	********
5	1	*
NO ANSWER	13	
MEAN	=	2.1228

INSUFFICIENT SPACE

1	38	**************************************
2	9	*********
3	5	*****
4	3	***
5	2	**
NO ANSWER	13	
MEAN	=	1.6316

TRANSPORTATION PROBLEMS

1	29	*****************************
2	11	***********
3	12	************
4	2	**
5	4	****
NO ANSWER	12	
MEAN	=	1.9828

EXPORT MARKETS

1.00	39	**
2.00	4	****
3.00	6	******
4.00	2	**
5.00	5	*****
NO ANSWER	14	
MEAN	=	1.7500

LABOR PRODUCTIVITY

1	13	**********
2	5	*****
3	15	**********
4	12	**********
5	12	**********
NO ANSWER	13	
MEAN	=	3.0877

LABOR AVAILABILITY

1	17	**********
2	7	*******
3	13	**********
4	9	*********
5	9	*********
NO ANSWER	15	
MEAN	=	2.7455

G.14 OVER THE NEXT TWO YEARS, ARE YOU ANTICIPATING:

DECLINE	3	***
NO GROWTH	10	**********
SLOWED RATE OF GROWTH	16	**********
SAME RATE OF GROWTH	17	**********
ACCELERATED GROWTH	17	**********
NO ANSWER	7	

G.15 FIVE YEARS FROM NOW, HOW LIKELY IS YOUR COMPANY TO BE INVOLVED IN: (1 = VERY UNLIKELY, 5 = VERY LIKELY)

ACQUISITION OF OTHER COMPANIES

1	25	**********
2	8	********
3	7	*******
4	16	**********
5	7	*******
NO ANSWER	7	
MEAN	=	2.5656

MERGER OF YOUR COMPANY WITH OTHERS

1	28	**********
2	12	**********
3	7	*******
4	12	**********
5	4	****
NO ANSWER	7	
MEAN	=	2.2381

CONTINUED GROWTH IN CURRENT MARKETS

1	3	***
2	6	******
3	14	**********
4	20	**********
5	20	**********
NO ANSWER	7	
MEAN	=	3.7619

EXPANSION OF DOMESTIC MARKETS

1	14	**********
2	4	****
3	18	**********
4	14	**********
5	14	**********
NO ANSWER	8	
MEAN	=	3.1613

EXPANSION INTO (OF) FOREIGN MARKETS

1	40	**********
2	3	***
3	6	******
4	6	******
5	5	*****
NO ANSWER	10	
MEAN	=	1.8833

JOINT VENTURES WITH OTHER FIRMS

1	19	**********
2	8	********
3	8	********
4	18	**********
5	10	**********
NO ANSWER	7	
MEAN	=	2.8730

RELOCATION TO ANOTHER REGION OF THE COUNTRY

1	43	**********
2	10	**********
3	6	******
4	2	**
5	0	
NO ANSWER	8	
MEAN	=	1.4590

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